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NATIONAL FOOD Situation

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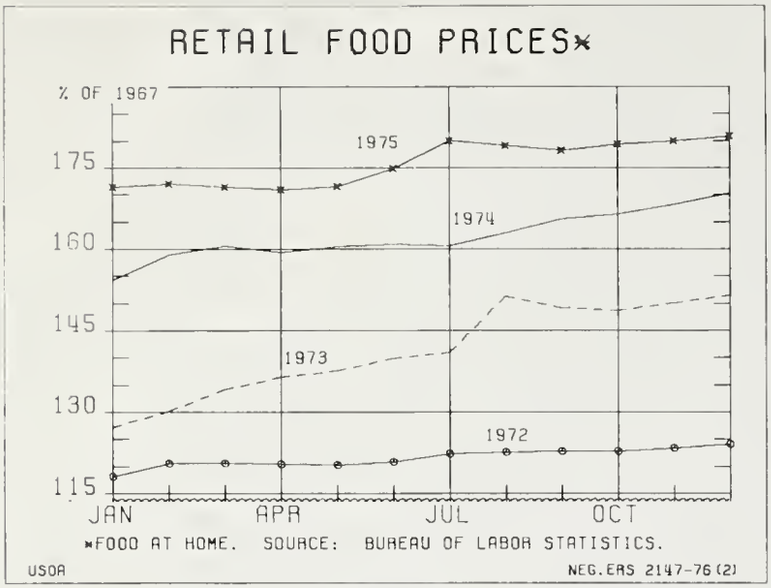
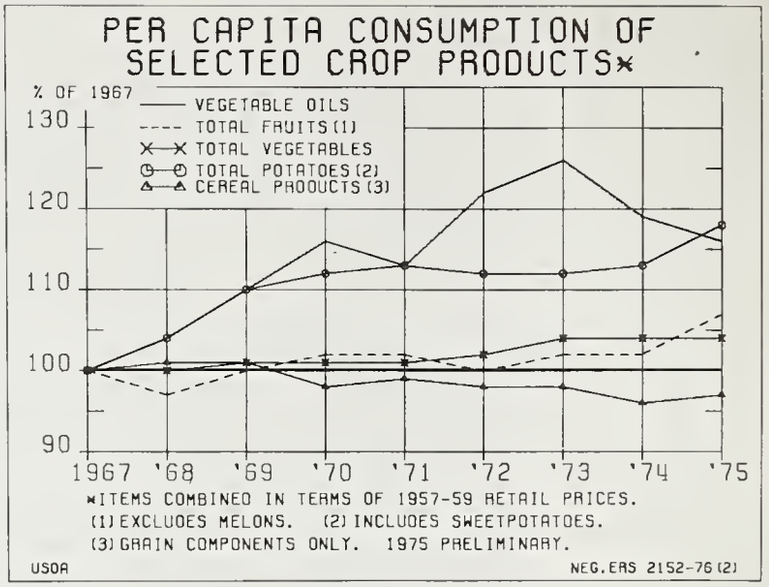


Figure 1



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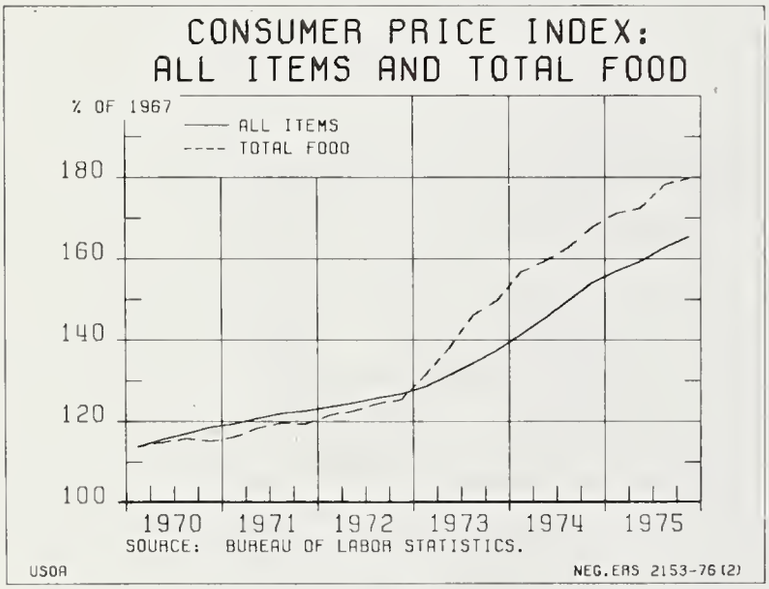

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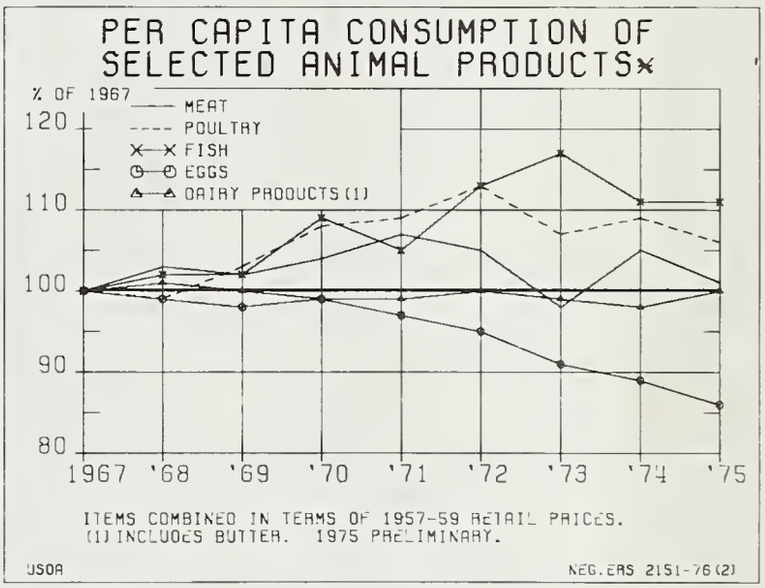

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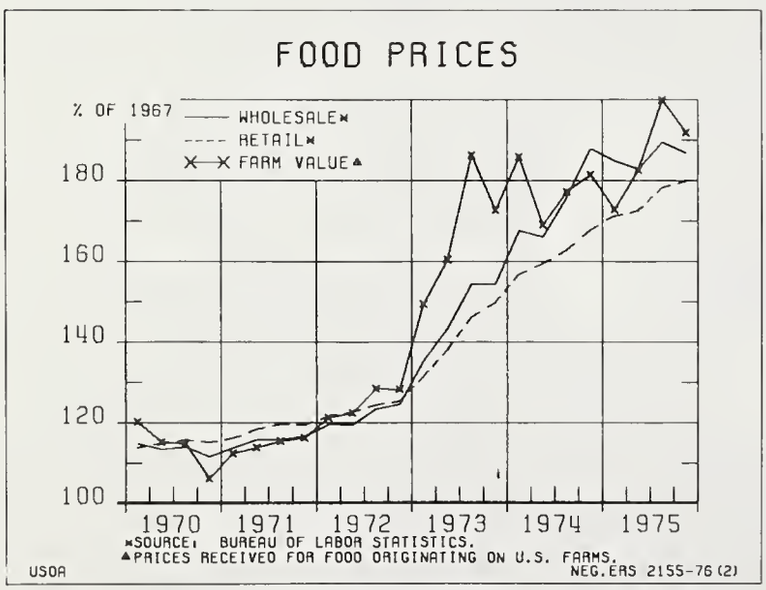

Figure 5

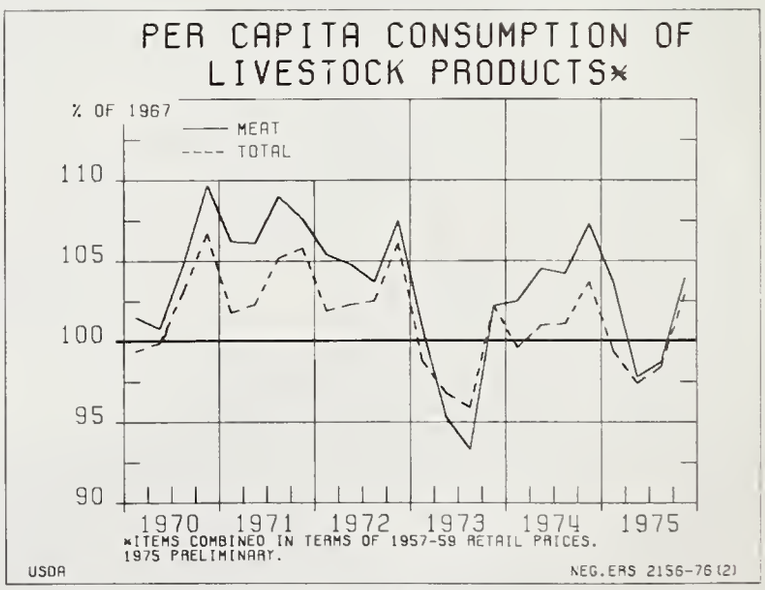

Figure 6

NATIONAL FOOD SITUATION

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Approved by
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February 19, 1976

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SUMMARY

Food Price Rise Softens

Larger supplies of many crop and livestock items are slowing the rise in retail food prices. Following the sharp jump last summer, food prices during the fourth quarter of 1975 averaged only 1 percent above the previous quarter and about 7 percent above a year earlier. Further increases of around 1 percent per quarter are in prospect through mid-1976 with food prices for the first half of the year likely averaging around 6 percent above a year earlier. This would compare with first half increases relative to a year earlier of nearly 9 percent in 1975 and about 17 percent in 1974.

Retail prices of red meat are expected to average close to last fall's level during the first half of this year, with increases for beef and veal during the spring about offset by lower pork prices. Poultry prices have fallen from their peak of last summer, and may show some further declines in coming months. Egg prices may remain strong before dropping seasonally this spring. Retail dairy prices, which advanced rapidly late last year, may stabilize this winter and hold steady throughout the spring as supplies increase. Prices for fishery items likely will continue to strengthen, reflecting tighter supplies of some products.

Fresh produce prices are likely to advance seasonally during coming months. Prices of most other crop-related foods will probably remain relatively stable, as generally ample supplies balance out continued upward pressures of processing and marketing costs. However, coffee prices are expected to continue to surge ahead, reflecting anticipated reductions in world supplies following the 1975 freeze in Brazil.

Food prices during the second half of this year will be heavily influenced by weather and crop conditions during the 1976 growing season. Generally large U.S. and world crops, along with further increases in the output of livestock-related foods, likely would result in a continued slow rise in food prices this summer and fall. Alternatively, major weather problems that reduced crop output would put upward pressures on retail food prices, especially late 1976 and in 1977.

Per capita food consumption is headed for an increase this year—perhaps by 1 to 2 percent from 1975, essentially recovering the 1½ percent decline of last year. Both animal- and crop-related foods are expected to share about equally in the gain.

The increased consumption of animal-related foods for 1976 reflects an expected higher level of output of fed beef, pork, and poultry products as domestic feeding recovers from the relatively low 1975 level. Prospects for increased consumption of crop-related foods in 1976 in part reflect larger beginning year inventories of many commodities. But, crop food consumption during the latter half of the year will also depend on weather conditions and the size of 1976 crop harvests.

The Consumer Price Index (CPI) for all foods at retail in 1975 averaged 8½ percent above 1974. This compares with annual increases of 14½ percent during the previous 2 years. The 1975 rise reflected an increase of more than 8 percent for food-at-home prices, with food-away-from-home prices rising more than 9 percent over a year-earlier. Widening marketing spreads accounted for about three-fourths of the rise in retail food prices in 1975.

The Wholesale Price Index (WPI) for all foods averaged 6½ percent above 1974, reflecting prices that were sharply above year-earlier levels at the beginning of the year. However, by December 1975 food prices at wholesale averaged, about 2 percent below a year earlier. Prices for beverages and red meats, especially pork and poultry, registered large increases, but prices for fish, dairy products, and processed fruits and vegetables were also higher. Fresh and dried fruits and vegetables, eggs, vegetable oils, and sugar prices were lower.

Meat and poultry consumption rebounded during the fourth quarter from low spring and summer levels, reducing the overall decline in food consumption last year. However, the index of per capita food consumption fell about 1 percent in 1975 from a year earlier to its lowest level since 1968.

Per capita consumption of crop-related foods in 1975 remained essentially unchanged from 1974, and about 2 percent below the record high of 1973. Substantial increases for fresh and processed fruits and fresh potatoes—and lesser gains for processed vegetables and cereal products—just about offset a sharp drop in sugar consumption and smaller declines for vegetable oils, fresh vegetables, and coffee.

Consumption of animal-related foods fell about 2 percent last year but remained slightly above the low 1973 level. Unfavorable returns to livestock producers in 1974 and 1975 led to sharp cutbacks in the output of pork, grain-fed beef, and poultry products through much of 1975. However, a big gain in slaughter of cattle and calves with little or no grain feeding prevented an even larger decline in red meat consumption.

For all of 1975, expenditures for food averaged nearly 11 percent higher than in 1974, with most of the increase in the first half. Expenditures for food at home were up 10 percent for 1975, while expenditures for restaurant meals and snacks increased nearly 14 percent. Food expenditures increased at a slower rate in 1975 than during the preceding 2 years because of more moderate price increases.

During 1975 the total value of food stamps issued rose to $8.3 billion, for an increase of more than 40 percent over 1974. Bonus stamps (stamps received free) rose 45 percent to $5 billion. Food stamp purchases accounted for nearly 6 percent of personal consumption expenditures on food for use at home. In 1975, for the first time in the program's history, households not on public assitance rolls accounted for over half of food stamp recipients.

Net production of U.S. farm food commodities totaled almost 12 percent above 1974, reflecting a 16-percent gain in output of food crops as well as the small feed use of crops. However, the large crop and perhaps some holdback in marketings resulted in a big buildup in inventories of food crops. Total domstic use, excluding feed and seed declined slightly from 1974 to 1975. Most of this decrease occurred in food use, the major utilization component of farm food commodities. However, the volume of exports, the second significant utilization component, grew by more than 9 percent. Larger exports more than offset the decline in domestic consumption, so that total disappearance in 1975 was up slightly from 1974.

FOOD PRICES

1975 Food Price Rise Lowest in 3 Years

The Consumer Price Index (CPI) for all food in 1975 averaged 8½ percent above 1974, compared with annual increases of 14½ percent the previous 2 years. The 1975 increase reflected an 8.3-percent rise for food-at-home prices, compared with a 15-percent increase in 1974 and almost 16½ percent in 1973. Food-away-from-home prices, rising at the same pace as the CPI for all items less food, averaged 9.3 percent higher last year, down from the nearly 13-percent increase in 1974 (table 1).

The rate of increase in retail food prices slowed considerably during the winter and early spring of 1975, largely reflecting declining prices for meat and poultry. Sharply reduced harvests of feed

grains and soybeans in 1974 and strong export demand over the previous 2 years resulted in light supplies and high prices for livestock feed, which helped prompt a rapid liquidation of hogs and cattle. This large influx of pork and beef coming to market, coupled with some softening in consumer demand, stabilized retail prices for most livestock-related food products. However, generally rising prices for crop-related foods were offsetting. Rising marketing costs contributed to the increase, especially as earlier price hikes for many crop commodities advanced to the retail level.

By spring, however, the situation for both crop and livestock- related foods began to change. The seasonal decline in beef production was accentuated by sharp cutbacks in response to high feed costs and relatively low product prices. As a result, meat prices rose sharply, and accounted for much of the midyear bulge in average food prices. In contrast, crop-related food prices began to decline gradually in the spring and continued to soften through the summer and fall. The easing reflected more ample supplies and generally lower farm prices for most crop food commodities relative to the previous year (table 17).

Marketing spreads accounted for about three-fourths of the rise in retail food prices in 1975, with the farm side representing the other one-fourth. Livestock products contributed most to the increase in farm value as farmers' returns for crop products decreased. Wider marketing spreads for crop products accounted for most of the increase in the total farm-retail spread in 1975. Spreads for meat narrowed during the spring and summer when live animal prices were rising but widened sharply later in the year.

The farm-retail spread for market basket foods averaged 9 percent above 1974. Although last year's gain slowed from the record increase of 20 percent in 1974, it was well above the 6 percent gain in 1973 and 2 percent in 1972. Increases were largest for processed crop foods such as bakery and cereal products, fats and oils products, processed fruits and vegetables, and products containing sugar. Gains in spreads for most processed products were piled on top of the even larger increases which occurred in 1974. Increases in price spreads were much more moderate for animal products and fresh fruits.

Fourth Quarter Food Prices Relatively Stable

The fourth quarter 1975 CPI for all foods averaged less than 1 percent above the third quarter. The quarterly advance reflected gains of 0.6 percent for food at home and 2½ percent for food way from home. The CPI for all items less food rose about 2 percent. For the fourth quarter of 1975, the all-foods retail price index averaged 7 percent above the year-earlier period.

Changes in retail food prices, from year earlier

Item	Annual 1975 average	Fourth quarter 1975
	Percent	*Percent*
Meat	8.4	18.2
Poultry	10.6	13.0
Fish	8.3	10.0
Dairy products	3.1	6.2
Eggs	-1.9	-2.9
Fats and oils	10.7	-10.2
Fruits and vegetables	3.1	3.8
Sugar and sweets	26.1	-8.2
Cereal and bakery products	11.3	2.2
Beverages	15.0	9.8
Other preparations	13.0	3.2
Food at home	8.3	7.0
Food away from home	9.3	7.8
All food	8.5	7.2

The fourth quarter retail price increase was essentially a result of a sharp advance in marketing costs, which offset a reduction in the farm value of food commodities. The farm-retail spread for meats, and fats and oils showed major gains, but dairy, poultry, cereal and bakery, processed fruits and vegetables, and partially prepared food product spreads were also higher. Spreads for fresh fruit and vegetables dropped. The decline in the farm value of the market basket was due to declines in fats and oils, partially prepared foods, cereal and bakery products, and fresh fruits and vegetables. Most animal-related food products had a considerably higher farm value than in the third quarter.

The advance in grocery store food prices reflected a 2½-percent increase for livestock-related foods with a partial offset provided by a 1½-percent drop for crop-related foods.

Among livestock food products, a drop in beef prices was more than offset by a sharp increase in retail pork and other red meat prices. Fish, eggs, dairy product prices rose considerably, but chicken prices were lower.

Among crop-related foods, fats and oils, fresh fruits and vegetables, cereal and bakery products, and sugar products dropped. Prices for beverages (largely coffee) and processed fruits and vegetables (led by dried beans) rose sharply.

Food Price Outlook

Larger supplies of many crop and livestock items are slowing the rise in retail food prices. Following the sharp jump last summer, food prices during the fourth quarter of 1975 averaged only 1

Table 1--Consumer, wholesale, and farm price indexes, 1974-75
(1967=100)

Item	1974	1975					Percent change 1974-1975
		I	II	III	IV	Year	
Retail prices: 1/							
All goods and services (CPI)	147.7	157.0	159.5	162.9	165.5	161.2	9.1
All items less food	143.6	152.9	155.7	158.5	161.3	157.1	9.3
All food	161.7	171.3	172.5	178.2	179.9	175.5	8.5
Food at home	162.4	171.6	172.5	179.0	180.1	175.8	8.3
Food away from home	159.4	170.3	172.7	175.0	179.1	174.3	9.3
Wholesale prices: 1/							
All commodities	160.1	171.2	173.0	176.7	178.6	174.9	9.2
Industrial commodities	153.8	168.3	170.2	172.2	175.4	171.5	11.5
Farm products	187.7	175.1	182.8	194.7	194.3	186.7	-.5
Processed food	173.2	186.8	183.5	190.5	187.4	187.1	8.0
All food 2/	174.4	184.8	182.9	189.5	186.8	186.0	6.6
Prices received by farmers: 3/	184	168	177	189	188	181	-1.6
Crops	214	194	190	201	192	194	-9.3
Livestock and products	164	152	168	182	187	172	4.9
Market basket of U.S. farm foods: 4/							
Retail cost	161.9	168.8	170.1	177.6	177.9	173.6	7.2
Farm-retail spread	151.4	166.3	162.2	163.5	169.2	165.3	9.2
Farm value	178.4	172.9	182.5	199.9	191.8	186.7	4.6

1/ Department of Labor, Bureau of Labor Statistics.
2/ All food includes all processed foods plus eggs and fresh and dried fruits and vegetables from the farm products group.
3/ Statistical Reporting Service.
4/ Economic Research Service.

percent above the previous quarter and about 7 percent above a year earlier. Further increases of around 1 percent per quarter are in prospect through mid-1976 with food prices for the first half of the year likely averaging around 6 percent above a year earlier. This would compare with first half increases relative to a year earlier of nearly 9 percent in 1975 and about 17 percent in 1974.

Red meat prices are expected to average close to last fall's level during the first half of this year with prospective increases for beef and veal during the spring about offset by prospects for lower pork prices. Poultry prices have fallen from their peak of last summer and may show some further declines in the coming months. Egg prices may remain strong through this winter before dropping seasonally in the spring. Retail dairy prices, which advanced rapidly late last year, may stabilize in the spring as supplies increase. Prices for fishery items likely will continue to strengthen, reflecting tight supplies for some products.

Fresh produce prices are likely to advance seasonally during coming months. However, prices of most other crop-related foods, such as processed fruits and vegetables, cereal and bakery products, and vegetable oil products, will probably remain relatively stable as generally ample supplies mitigate the upward pressure from processing and marketing costs. However, coffee prices are expected to continue to surge ahead, reflecting anticipated reductions in world supplies following the 1975 freeze in Brazil.

Food prices during the second half of this year will be heavily influenced by weather and crop conditions during the 1976 growing season. Generally large U.S. and world crops, along with further increases in the output of livestock-related foods, likely would result in a continued slow rate of increase in food prices this summer and fall. Under these conditions, the average increase in U.S. food prices for 1976 would be well below the 8½ percent increase of last year. Alternatively, major weather problems that reduce output would again put upward pressures on retail food prices, especially late in 1976 and in 1977.

Commodity Review

Beef and Veal—Retail prices for beef and veal in 1975 averaged about the same as in 1974. During late 1974 and early 1975, beef prices dropped at a brisk pace. Increased slaughter of cattle and calves with limited or no grain feeding more than offset smaller supplies of grain-fed beef during the winter to keep total beef production large. By spring and through mid summer, however, retail prices jumped sharply, as supplies of grain fed beef fell to the lowest level in 10 years. Retail prices moderated again through the fall as beef supplies increased to record proportions led by the heavy slaughter of cows and other grass-fattened animals.

Significant increases in the supply of grain fed beef along with continued heavy nonfed cattle slaughter will keep downward pressure on Choice grade beef prices this winter. However, upward trending prices are in prospect for the spring as beef production dips seasonally. Fed beef production will likely remain high through midyear, but if spring grazing conditions are favorable, declines in nonfed beef supplies could be more than offsetting. Most price advances likely will be associated with hamburger and lower grade beef cuts reflecting reduced slaughter of nongrain fed animals.

Pork—Retail pork prices last year averaged 22 percent above 1974. The increase reflected sharply lower pork supplies after hog farmers trimmed inventories and cut back farrowings in response to reduced grain supplies and resultant high feed prices. Pork production for all of 1975 was down 17 percent from a year earlier and was the lowest since 1966. Prices rose sharply during the spring and summer but fell back slightly late in the year as pork supplies registered a small seasonal increase and encountered additional competition from larger beef and poultry supplies.

Further moderate declines from last fall's record high pork prices are likely through the first half of 1976. However, pork supplies will remain relatively tight and prices will remain well above year-earlier levels through midyear. More pork is in prospect for the second half of the year as producers respond to the improved returns of the second half of 1975 and early 1976.

Fish—Retail fish prices in 1975 averaged 8½ percent above 1974, compared with 15 percent annual rises the previous 2 years. Demand for seafood products was relatively strong due to high red meat and poultry prices, and supplies tightened during part of the year because of lower imports and a reduction in domestic landings. With supplies generally at or below normal, and total sales expected to remain strong from increased restaurant sales, prices likely will continue to strengthen through the first half of 1976. Seasonally larger supplies during the second half can be expected to moderate further price increases later this year.

Dairy—Retail dairy prices in 1975 averaged 3 percent above 1974, compared with a 19-percent increase a year earlier. Retail prices remained stable through winter and then declined in the spring, but increased at a brisk pace during the second half of the year, reflecting a decline in stocks and higher farm prices for milk. Average retail prices for dairy products will rise more slowly or possibly stabilize during the spring as milk production increases.

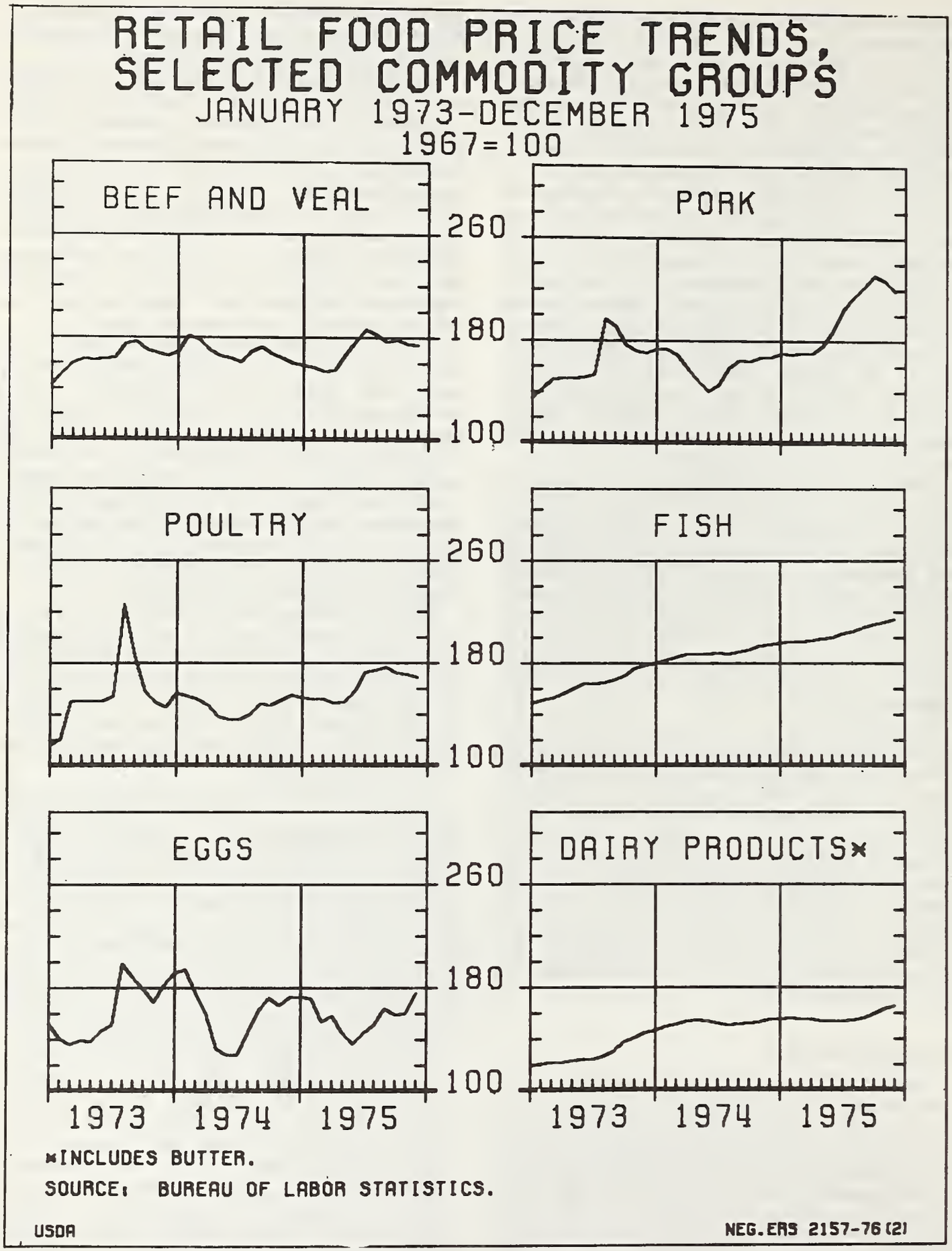
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1973-DECEMBER 1975
1967=100
BEEF AND VEAL
PORK
POULTRY
FISH
EGGS
DAIRY PRODUCTS*
260
180
100
1973
1974
1975
*INCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2157-76 (2)

Figure 7

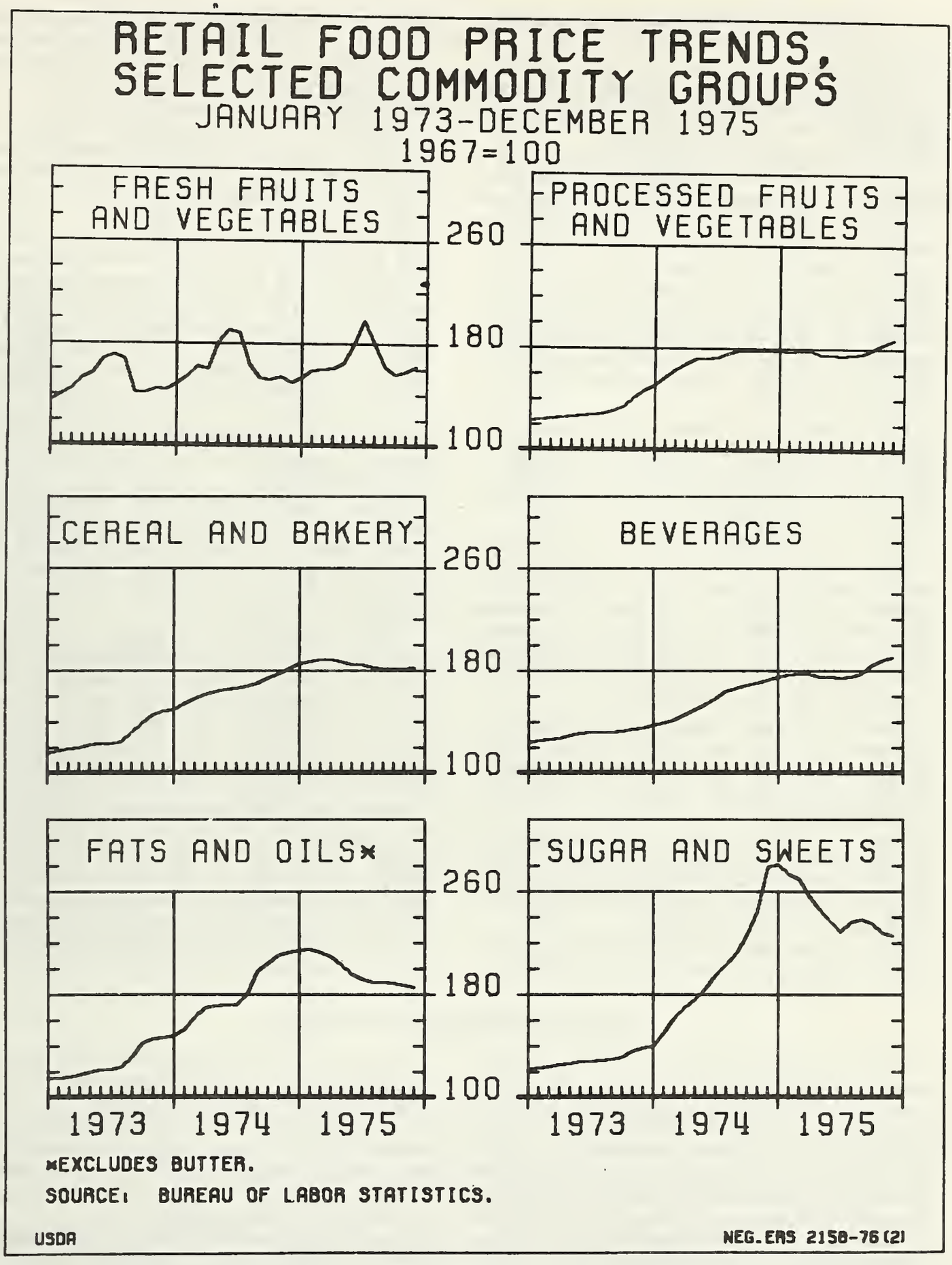
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1973-DECEMBER 1975
1967=100
FRESH FRUITS AND VEGETABLES
PROCESSED FRUITS AND VEGETABLES
CEREAL AND BAKERY
BEVERAGES
FATS AND OILS*
SUGAR AND SWEETS
260
180
100
1973
1974
1975
*EXCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2158-76 (2)

Figure 8

Poultry—Retail poultry prices, which registered a 5-percent drop in 1974, rose 11 percent in 1975. The retail index fell through much of the first half, but lower output and higher red meat prices caused prices to be sharply higher in late spring and summer. Broiler prices declined seasonally in the fall but turkey prices registered a small seasonal rise.

Larger output is expected to hold broiler prices relatively steady through the first half of this year. Turkey prices likely have about reached their low and will probably strengthen in coming months.

Eggs—Retail egg prices averaged 2-percent below 1974 despite an almost 3-percent decline in egg production. Retail prices dropped sharply through the first half, and then rose through the summer and fall because of higher prices for other high protein foods and a seasonal pickup in demand for eggs.

Egg prices eased as usual in late January and early February. Prices likely will increase as Easter approaches before dropping seasonally in the spring. First half prices may average moderately above a year earlier.

Fats and Oils—Retail prices for fats and oils averaged 11 percent above 1974, compared to a 42 percent increase the previous year. Retail prices peaked in early 1975 and fell steadily throughout the year. In December, prices were 14 percent below January 1975. Further small declines are likely in retail prices, reflecting larger supplies and lower prices for crude vegetable oils.

Sugar and Sweets—Sugar and sweets prices in 1975 averaged 26 percent above 1974, half the size of the previous year's advance. Retail sugar prices peaked in January, and by December had fallen almost 20 percent.

Beverages—Retail beverage prices averaged 15 percent above 1974. Coffee prices peaked in April and then stabilized some through midsummer, but have risen sharply in recent months following the severe freeze in Brazil last July.

U. S. consumers can expect further substantial hikes in coffee prices this year. World coffee production for the next 3 years may be less than world consumption and stocks likely will be drawn down to relatively low levels. This year's Brazilian crop may be less than half of the 1975/76 crop as trees are recovering from the severe frost damage.

Fruits and Vegetables—Retail prices for all products in this category in 1975 averaged about 3 percent above 1974. Fresh produce prices averaged about 2 percent higher while processed fruits and vegetables were up nearly 5 percent.

Fresh potato prices last year averaged about a fifth below 1974. Prices were depressed during the first half of 1975 by heavy storage stocks carried over from the record large crop harvested the previous fall. However, prices jumped sharply about midyear reflecting the smaller 1975 harvests. Retail potato prices during the fourth quarter were nearly 18 percent above a year earlier. Potato prices are expected to continue to rise in the next few months, possibly averaging around 50 percent above the unusually low year-earlier levels during the first half of 1976.

Retail prices for other fresh vegetables rose sharply during the early months of 1975, but moderated seasonally during the summer and fall. Seasonal price increases are likely this winter and spring with first half 1976 prices averaging around a tenth above last year.

Fresh fruit prices rose through most of the first three quarters of 1975 but dropped sharply during the late summer and fall in the face of a record large apple crop and seasonally large citrus supplies. For the year, fresh fruit prices averaged about 7 percent above 1974. Prices are expected to strengthen seasonally during the first half of this year but average slightly below year-earlier levels.

Retail prices for processed fruits and vegetables were relatively stable during most of last year following an increase of nearly a third the year before. Rising prices for dried beans pulled averages prices up during the closing months of 1975. Plentiful supplies of most canned and frozen products are expected to result in some downward pressure on prices during the first half of 1976.

FOOD SPENDING AND INCOME

Preliminary data indicate that Personal Consumption Expenditures for food in the fourth quarter of 1975 were at an annual rate of $191.6 billion, 2.7 percent above the third quarter. Restaurant meals and snacks accounted for over half of the increase from the third quarter to the fourth quarter rising a record 6.2 percent. Expenditures for food at home rose 1.7 percent. The quarterly increase in food expenditures reflects both a greater quantity of food purchased and a modest rise in food prices.

For all 1975 food expenditures averaged nearly $184.6 billion, 11 percent higher than in 1974. Expenditures for food at home rose 10 percent while expenditures for restaurant meals and snacks increased by a record 13.8 percent. Total consumer food expenditures for food did not rise as rapidly during 1975 as in 1974 because of the smaller rise in retail food prices.

In January the U.S. Department of Commerce released revisions of the National Income and Product Accounts. Estimates of Personal Con-

Table 2--Expenditures for food in relation to disposable income, 1960-75 1/

Year	Disposable personal income	Personal consumption expenditures for food 2/					
		For use at home 3/		Away from home 4/		Total	
		Amount	Percentage of income	Amount	Percentage of income	Amount	Percentage of income
	Bil. dol.	Bil. dol.	Pct.	Bil. dol.	Pct.	Bil. dol.	Pct.
1960	349.4	56.3	16.1	14.2	4.1	70.5	20.2
1961	362.9	57.3	15.8	15.1	4.2	72.4	20.0
1962	383.9	57.8	15.1	16.1	4.2	73.9	19.3
1963	402.8	58.8	14.6	17.0	4.2	75.8	18.8
1964	437.0	62.2	14.2	18.0	4.1	80.2	18.3
1965	472.2	66.8	14.2	19.0	4.0	85.8	18.2
1966	510.4	72.4	14.2	20.2	3.9	92.6	18.1
1967	544.5	74.0	13.6	21.0	3.9	95.0	17.5
1968	588.1	79.5	13.4	23.2	3.9	102.7	17.5
1969	630.4	84.7	13.4	24.8	3.9	109.5	17.3
1970	685.9	91.8	13.4	26.8	3.9	118.6	17.3
1971	742.8	94.2	12.7	27.8	3.7	122.0	16.4
1972	801.3	100.5	12.5	30.1	3.8	130.6	16.3
1973	903.1	112.9	12.5	33.9	3.8	146.8	16.3
1974	983.6	128.4	13.0	38.1	3.9	166.5	16.9
I	953.8	123.0	12.9	36.1	3.8	159.1	16.7
II	968.2	125.6	13.0	37.4	3.8	163.0	16.8
III	996.3	131.4	13.2	38.6	3.9	170.0	17.1
IV	1,015.9	133.6	13.2	40.1	3.9	173.7	17.1
1975	1,076.8	141.3	13.1	43.3	4.0	184.6	17.1
I	1,024.0	137.2	13.4	41.5	4.1	178.7	17.5
II	1,081.7	139.1	12.9	42.7	3.9	181.8	16.8
III	1,087.1	143.3	13.2	43.2	4.0	186.5	17.2
IV 5/	1,114.4	145.7	13.1	45.9	4.1	191.6	17.2

1/ Quarterly data are seasonally adjusted annual rates. All data reflect the January 1976 revision in the National Income and Product Accounts. 2/ Data of the Department of Commerce in the Survey of Current Business. Omits alcoholic beverages, food donated by Government agencies to schools and needy persons, and non-personal spending for food such as business purchases of meals, food furnished inmates of hospitals and institutions, and food included with transportation tickets and camp fees. 3/ Includes food consumed on farms where produced. 4/ Includes food served to the military and employees of hospitals, prisons, and food service establishments. 5/ Preliminary.

Change in food expenditures, fourth quarter, 1975 (Seasonally adjusted)

Item	From third quarter 1975	From fourth quarter 1974[1]
	Percent	*Percent*
Total food		
Current dollars	2.7	10.3
1972 dollars	1.8	4.8
Food at home		
Current dollars	1.7	9.1
1972 dollars	.8	4.2
Food away from home		
Current dollars	6.2	14.3
1972 dollars	4.8	6.5

[1] Preliminary.

sumption Expenditures for food were revised upward with the most substantial revisions associated with the years 1969 through 1972. Based on the revised data, the percentage of Disposable Personal Income represented by Personal Consumption Expenditures for food reached a low of 16.3 percent in both 1972 and 1973. Prior to the January revisions the shares for each of these years were 15.4 percent and 15.9 percent, respectively.

Preliminary data indicate that the share of disposable income represented by food expenditures in 1975 rose to 17.1 percent following its rise to 16.9 percent in 1974. However, the 1975 share was still below the level for any year prior to 1971 (table 2).

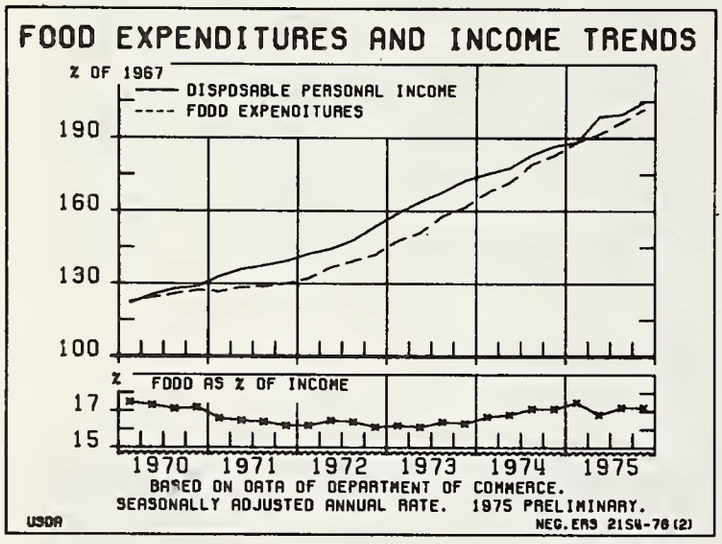

Figure 9

Between 1960 and 1967 all of the increase in the revised estimates for food expenditures relative to earlier estimates can be attributed to upward revisions for restaurant meals and snacks; these more than offset downward revisions in the estimates of expenditures on food purchased for use at home. Between 1969 and 1973 estimates of expenditures for away-from-home eating and food purchased for use at home were revised upward, although the latter revision was of a smaller magnitude. As a result of these revisions the estimates of the proportion of the food dollar allocated to restaurant meals and snacks has been increased from between 18 and 19 percent to between 22 and 23 percent.

Quarterly changes in personal expenditures and disposable personal income (Seasonally adjusted)

Item	1975			
	I	II	III	IV[1]
	Pct.	*Pct.*	*Pct.*	*Pct.*
Personal consumption expenditures[1]	2.0	2.6	2.9	2.2
Durable goods[1]	1.4	4.1	6.5	3.5
Nondurable goods	1.8	2.7	2.9	2.0
Food[1]	2.9	1.7	2.6	2.7
Other	.9	3.5	3.1	1.4
Services[1]	2.3	2.0	1.8	2.0
Personal disposable income	0.9	5.6	.5	2.5

[1] Preliminary.

Proportion of Total Consumer Expenditures

Consumers increased the proportion of their total expenditures for food and household operations, including increased spending due to rising utility costs in 1975. Expenditures on gasoline and oil products as a percent of total expenditures remained stable in 1975, after increasing substantially in 1974. To offset higher food and fuel expenditures during the past two years consumers allocated a smaller proportion of expenditures toward purchases of all categories of durable goods, clothing, and shoes. The percent allocated to automobiles has declined in both 1974 and 1975 while the proportion of consumer spending on clothing and shoes remained the same in 1975 after declining in 1974.

USDA Food Programs

The number of participants in the Food Stamp Program remained high during 1975. Having reached a peak of 19.3 million during the second quarter and then declining seasonally during the third quarter, participation appears to remain unchanged in the fourth quarter averaging 18.8

Proportion of total consumer expenditures

Item	1973	1974	1975[1]
	Percent	*Percent*	*Percent*
Food excluding alcoholic beverages	18.2	18.8	19.2
Nondurables excluding food	23.2	23.6	23.4
Clothing and shoes	7.6	7.3	7.3
Gas and oil	4.5	5.2	5.2
Other	11.1	11.1	10.9
Durables	15.2	13.8	13.3
Automobiles and parts	6.7	5.4	5.1
Other	8.5	8.4	8.2
Services	43.4	43.8	44.1
Housing	15.2	15.3	15.4
Household operation	6.2	6.4	6.6
Transportation	3.4	3.5	3.5
Other	18.6	18.6	18.6

[1] Preliminary.

million. Although edging downward slightly, households not on public assistance still accounted for over half of those receiving food stamps throughout the year. However, the increased participation in the fourth quarter was due to increased public assistance participation. The percentage of total participation of those not on public assistance was 54 percent, the lowest percentage since the fourth quarter 1974. Primary reasons for the continued high rate of participation include the high level of unemployment, increases in the income eligibility levels, and growing knowledge and acceptance of the program. In addition, continued growth occurred in Puerto Rico among former participants of the Food Distribution Program which was terminated January 30, 1975.

The value of bonus stamps (stamps received free) totaled $1.3 billion during the fourth quarter, down slightly from the previous quarter (table 3). The average bonus received per person declined slightly from a peak of $23.15 in the third quarter to $22.97 in the fourth after rising 6 percent when a semi-annual cost-of-living adjustment went into effect in July. Normally the average bonus per person rises at the time of the adjustment and the edges downward until the next adjustment.

The thrifty food plan has replaced the economy food plan as a basis for computing adjustment increases in the stamp allotment. The thrifty food plan essentially reflects changes in the recommended daily allowances of vitamins and nutrients made in 1974 by the Committee on Dietary Allowances, Food and Nutrition Board, National Research Council, National Academy of Sciences. The January 1976 semi-annual adjustment of 2.5 percent reflected both food price increases and the change in food plans used for computing the adjustment.

During 1975 the total value of food stamps rose to $8.3 billion, more than a 40 percent increase over 1974. Bonus stamps rose 45 percent to $5.1 billion. Purchases of food with bonus food stamps accounted for nearly 4 percent of Personal Consumption Expenditures for food at home.

Child Nutrition Programs

An average of 25.6 million children participated in the School Lunch Program during the last quarter of 1975, up slightly from the 25.3 million during the same period a year earlier. The proportion of children receiving free or reduced-price lunches has risen from 39 percent to nearly 41 percent. Two recent changes in the School Lunch Program which became effective January 1976, should result in expanded participation especially in the number of children receiving reduced-price lunches relative to those receiving free lunches. Any public or licensed nonprofit private residential child care institution is now eligible to participate in the School Lunch Program. All participating schools must now offer reduced-price lunches. The maximum eligibility level that State officials may set for reduced-price meal eligibility has been extended from 175 to 195 percent of the income poverty guidelines. The maximum level for free lunches remains at 125 percent of the income poverty guidelines.

In addition to the School Lunch Program, 2.5 million children participated in the School Breakfast Program during the last quarter compared to 1.8 million a year earlier. This increase can be partially attributed to some 2,500 more schools offering the School Breakfast Program. Originally the program was designed to meet the needs of children attending schools in economically depressed areas and those who must travel long distances to schools. Now all schools may participate in the program.

Federal cash grants to schools for the purpose of purchasing food increased relative to year-earlier levels. Federal expenditures for the School Lunch Program the last quarter of 1975 rose 14 percent from $379 million to $435 million above the last quarter of 1974. Grants for the School Breakfast Program rose 54 percent from $24 million to nearly $37 million. In addition to program expansion, increases in the reimbursement rates contributed to the increased Federal expenditure. In the School Lunch Program the reimbursement rate rose 2 percent for all lunches. The additional reimbursement for reduced-price lunches increased 5.1 percent and 4.1 percent for free lunches. In the School Breakfast Program reimbursement rates rose 2.6 percent for all breakfast. The increase in the additional reimbursement for both free and reduced-price

Table 3--Federal cost of USDA food programs, 1970-75

Year	Food stamps		Food distribution 2/			Child nutrition 5/				WIC 7/	Total 8/
	Total issued	Bonus stamps 1/	Needy families	Schools 3/	Other 4/	School lunch	School breakfast	Special food 6/	Special milk		
	Million dollars										
1970	1,925	1,104	294	272	35	366	14	16	96	---	2,197
1971	3,103	1,699	318	297	40	645	22	34	92	---	3,146
1972	3,615	1,980	271	283	40	764	28	44	91	---	3,501
1973	4,049	2,209	217	266	42	969	44	52	64	---	3,865
I	999	546	59	91	10	297	12	5	30	---	1,051
II	992	537	52	51	11	230	9	9	23	---	922
III	1,007	554	59	33	10	115	6	33	1	---	810
IV	1,052	572	47	92	11	327	17	5	10	---	1,082
1974	5,868	3,498	115	390	37	1,157	68	90	88	32	5,475
I	1,316	794	47	129	9	367	20	9	21	1	1,396
II	1,353	799	37	65	10	274	16	15	16	6	1,239
III	1,488	885	17	63	6	139	8	54	15	10	1,199
IV	1,711	1,020	14	133	11	376	24	12	36	15	1,641
1975	8,331	5,075	13	404	35	1,365	101	118	132	122	7,365
I	1,996	1,223	4	145	11	423	28	13	39	21	1,907
II	2,064	1,254	3	92	10	342	25	21	33	31	1,811
III	2,125	1,303	3	26	7	165	12	71	18	34	1,639
IV 9/	2,146	1,295	3	141	7	435	37	13	42	35	2,008

1/ Includes Food Certificate Program. 2/ Cost of food delivered to State distribution centers. 3/ Includes Special Food Services. 4/ Includes supplemental food, institutions, elderly persons. 5/ Money donated for local purchase of food. Excludes nonfood assistance. 6/ Includes Child-Care and Summer Food Programs. 7/ Special Supplemental Food Program for Women, Infants, and Children begun January 1974. 8/ Excludes those food stamps paid for by the recipient. 9/ Preliminary.

breakfast was 4.1 percent. In addition to cash grants, schools received $141.0 million in donated foods during the last quarter of 1975.

Total Federal expenditures on food through the various USDA food programs was $7.4 billion during 1975, a 34-percent increase over 1974. Much of this increase was due to a large increase in the Food Stamp Program.

PER CAPITA FOOD CONSUMPTION

Meat and poultry consumption rebounded from low spring and summer levels during the fourth quarter, reducing the overall decline in food consumption last year. However, the 1975 index of per capita food consumption still fell about 1 percent from a year earlier to the lowest level since 1968 (table 4).

Per capita consumption of crop-related foods in 1975 declined slightly from 1974 to a level about 2 percent below the record high of 1973. Substantial increases for fresh and processed fruits and fresh potatoes along with smaller increases for processed vegetables and cereal products about offset a sharp drop in sugar consumption and smaller declines for vegetable oils, fresh vegetables, and coffee.

Consumption of animal-related foods fell about 2 percent last year but remained slightly above the low 1973 level. Unfavorable returns to producers in late 1974 and early 1975 resulted in sharp cutbacks in the output of pork, grain fed beef, and poultry products through much of 1975. However, sharp increases in slaughter of other cattle and calves with little or no grain feeding prevented meat consumption from declining further.

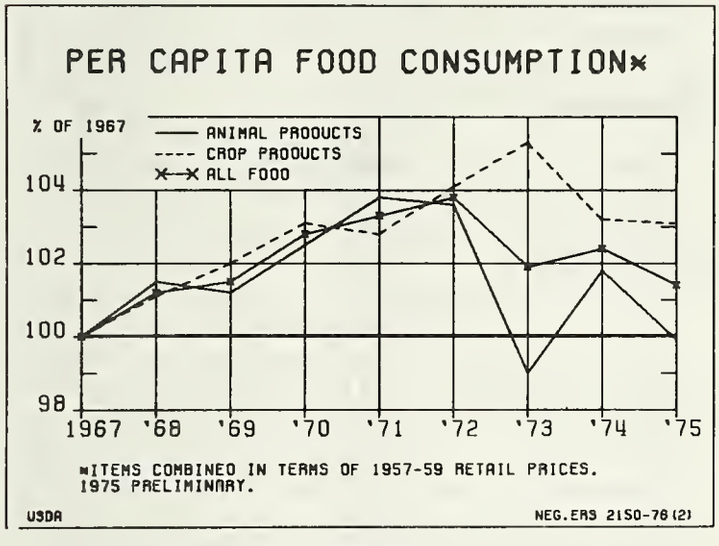

Figure 10

For all of 1975, red meat consumption was down about 4 percent from the previous year with sharp reductions for pork and grain fed beef more than offsetting the increase for other beef and veal. Per capita consumption of poultry and eggs each fell about 3 percent for the year despite their relatively strong fourth quarter recovery. Dairy products consumption gained about 2 percent during the year with increased sales resulting in a substantial drawdown of stocks. Consumption of fishery products totaled about the same as the year before.

During the October-December quarter, consumption of livestock-related foods moved about 4½ percent above the previous quarter, somewhat more than the normal seasonal increase. However, consumption of these products still totaled nearly 1 percent below the fourth quarter of 1974. Meat consumption jumped 5 percent from the summer but was 4 percent below a year earlier. Poultry consumption also registered a more than seasonal rise and moved above its low level of the preceding year. Egg use also rose seasonally during the fourth quarter but remained slightly below a year earlier. Consumption of dairy products remained unchanged from the third quarter instead of declining as usual and this resulted in a fourth quarter gain of about 1½ percent over 1974.

Per capita food consumption indexes, seasonally adjusted

Period		Total livestock	Meat
		1967=100	
1973	I	100.6	100.7
	II	97.9	97.2
	III	95.6	93.2
	IV	99.6	100.5
1974	I	101.4	102.3
	II	102.1	106.6
	III	100.8	104.1
	IV	101.1	105.5
1975[1]	I	101.2	103.5
	II	98.5	99.8
	III	98.1	98.6
	IV	100.3	102.2

[1] Preliminary.

Consumption to Increase in 1976

Per capita food consumption appears likely to increase 1-2 percent in 1976, recovering to about the same level as in 1974. Animal and crop-related foods are expected to share about equally in this gain.

The consumption increase for livestock-related foods for 1976 reflects an anticipated 2 percent

Table 4--Per capita food consumption indexes, 1967-75 1/
(1967=100)

Selected years	Meat	Poultry	Fish	Eggs	Dairy products 2/	Fats and oils			Fruits 3/		
						Animal 2/	Vegetable	Total	Fresh	Processed	Total
1967	100	100	100	100	100	100	100	100	100	100	100
1968	103	99	102	99	101	103	104	103	98	97	97
1969	102	103	102	98	100	95	110	105	98	102	100
1970	104	108	109	99	99	90	116	107	101	103	102
1971	107	109	105	97	99	90	113	105	98	106	102
1972	105	113	113	95	100	84	122	109	94	105	100
1973	98	107	117	91	99	80	126	110	93	110	102
1974	105	109	111	89	98	79	119	105	98	106	102
1975 4/	101	106	111	86	100	78	116	102	101	113	107

	Vegetables 5/			Potatoes and sweetpotatoes		Cereal products	Sugar and sweeteners	Coffee, tea, and cocoa	All food		
	Fresh	Processed	Total	Fresh	Processed				Animal products	Crops 6/	Total
1967	100	100	100	100	100	100	100	100	100.0	100.0	100.0
1968	99	104	100	101	106	101	103	100	101.5	101.1	101.2
1969	99	104	101	94	118	101	104	97	101.2	102.0	101.5
1970	100	104	101	91	121	98	106	94	102.5	103.1	102.8
1971	99	105	101	87	124	99	106	92	103.8	102.8	103.3
1972	99	108	102	89	123	98	108	98	103.6	104.1	103.8
1973	100	113	104	82	126	98	109	96	99.0	105.3	101.9
1974	100	111	104	78	129	96	106	91	101.8	103.2	102.4
1975 4/	99	112	104	92	130	97	99	88	99.9	103.1	101.4

1/ Civilian consumption only. Quantities of individual foods are combined in terms of 1957-59 retail prices, 2/ Includes butter. 3/ Excludes melons and baby food. 4/ Preliminary. 5/ Excludes soup, baby food, dry beans and peas, potatoes, and sweetpotatoes. 6/ Includes melons, dry beans and peas, nuts, soup, and baby food in addition to groups shown separately.

advance for red meats and a sharp jump in poultry consumption. All other foods in this category likely will remain essentially unchanged, except animal fats and oils which are expected to continue their long-run decline. Among red meats, per capita beef consumption is expected to rise about 2 pounds to an all-time high, while pork consumption may be up about 1-2 pounds from the depressed level of last year. Total red meat consumption likely will run above 1975 throughout the year.

The anticipated 1-2 percent advance for crop-related foods may bring consumption near the 1973 peak. Higher consumption of processed fruits and fresh and processed vegetables, and a sharp jump in sugar consumption from the low 1975 level will likely more than offset declines for beverages and fresh potatoes. Consumption of cereal and bakery products may remain about the same as last year.

Commodity Review

Meats—Red meat consumption in 1975 totaled about 145 pounds per person retail weight (181 pounds carcass weight), down 7 pounds from 1974 but still 3 pounds above 1973. Reduced commercial production of red meat in 1975 more than offset a small increase in meat imports. Commercial production in 1975 totaled 36.2 billion pounds, down 3 percent from the year before.

Beef consumption last year reached a record high of nearly 89 pounds per person (retail weight), up about 3 percent from 1974. Only about 53 percent of 1975's beef consumption was grain-fed beef, compared with 64 percent in 1974 and about 73 percent in 1973. Commercial veal output increased sharply as large numbers of calves were slaughtered rather than being held for further feeding. Veal consumption in 1975 totaled about 3½ pounds per person, the largest since 1966.

Beef production through the first half of 1976 is expected to remain 6-8 percent above a year earlier, but may decline seasonally in the spring from record winter levels. Cattle-on-feed inventories on January 1 this year were up 28 percent from a year ago, and cattle feeders have indicated they plan to market the most fed cattle during January-March since the spring of 1974. If so, this would increase first quarter fed beef supplies nearly a fourth from October-December 1975's low level. Further increases in placement of cattle on feed during the fall and early winter point to continued large fed beef supplies through the spring quarter.

Total beef production, although remaining large, may trend lower through midyear as slaughter of cull cows and other nonfed cattle declines as spring grazing conditions approach. The January 1 inventory of all cattle and calves on farms was down 4 million head from the year before, the first decline since 1967. The beef cow herd was reduced 4 percent following last year's liquidation of cows. If range feed conditions this spring are adequate, nonfed slaughter later this year will be down substantially from last fall's record levels. Seasonal reductions in beef production will likely raise retail beef prices this spring with most of the price rise associated with hamburger and other lower grade beef products.

Increases in beef and veal production and consumption levels last year were more than offset by reduced lamb and mutton production and a sharp decline in pork output. Commercial pork production last year totaled 11.3 billion pounds, down 17 percent from the year before and the lowest since 1966. Pork imports were down about 9 percent. When coupled with population growth, this reduced per capita consumption in 1975 to just under 55 pounds carcass weight (51 pounds retail weight), the lowest in 40 years.

Pork supplies will continue restricted through midyear. With 1975's fall pig crop down 8 percent from the previous quarter, hog slaughter during the first half of 1976 likely will be down by a similar percentage. The distribution of market hogs on farms by weight group last December suggests hog slaughter during the first quarter of this year may be down 10-12 percent, followed by a 3-5 percent reduction in April-June compared with a year earlier. Some increase in slaughter weights may hold the decline in first half pork output to 6-8 percent below the first half of 1975.

Although remaining below a year ago, pork production is expected to rise through midyear. Retail pork prices will remain well above a year ago through midyear, but are expected to trend lower as output picks up.

Lamb and mutton consumption last year was record low at a little less than 2 pounds per person, down slightly from the year before. Lower domestic production accounted for the decline since lamb and mutton imports were largely unchanged from 1974.

Poultry—*Broiler meat* output during 1975 was slightly larger than in 1974. Production was down sharply early in the year, but higher broiler prices and easing feed prices caused producers to expand. Output in October-December was around 10 percent larger than a year earlier. A favorable relationship between broiler prices and feed prices is expected to continue in coming months and output during the first half of 1976 is expected to be around 10 percent above January-June 1975. Chick placements for January-March marketings are 10 percent above a year earlier. Production is expected to continue above a year earlier during the second half of 1976 but may not show as large a percentage increase from 1975 levels as the first half of 1976.

Per capita consumption of chicken meat in 1975 totaled around 40.5 pounds (ready-to-cook weight),

Table 5--Livestock products: Per capita consumption indexes, quarterly, 1969-75 1/
(1967=100)

Year and quarter	Meat	Poultry	Eggs	Dairy products: Excluding butter	Dairy products: Including butter	Animal fats including butter	Total livestock products 2/
1969 I	102.9	85.2	99.4	98.2	98.7	100.7	99.3
II	99.5	97.3	97.0	102.8	102.2	88.1	99.7
III	102.7	106.9	96.9	100.6	100.1	95.6	101.9
IV	103.7	123.5	99.1	99.2	99.2	95.2	103.8
1970 I	101.5	91.8	98.9	98.9	98.9	99.4	99.4
II	100.8	102.1	96.5	100.4	99.4	83.7	99.9
III	104.8	113.2	97.2	100.2	99.7	84.3	103.1
IV	109.7	124.5	101.0	98.5	98.6	93.9	106.7
1971 I	106.2	92.8	98.2	99.0	99.0	98.8	101.8
II	106.1	100.7	96.4	100.2	99.3	83.7	102.3
III	109.0	113.0	95.2	100.5	99.5	88.2	105.2
IV	107.6	127.9	98.4	98.7	98.8	91.3	105.8
1972 I	105.4	98.0	98.7	99.7	99.2	89.1	101.9
II	104.8	108.4	93.3	101.0	100.0	79.8	102.3
III	103.7	115.7	92.9	100.6	99.7	82.4	102.5
IV	107.5	131.7	94.3	100.2	99.7	85.6	106.1
1973 I	100.9	95.6	92.4	99.7	99.2	82.5	98.8
II	95.3	101.7	91.5	100.7	99.8	78.8	96.8
III	93.3	107.1	87.6	100.3	99.3	75.7	95.9
IV	102.2	124.1	91.5	100.1	99.0	76.9	102.2
1974 I	102.5	99.0	89.5	99.8	98.4	79.5	99.6
II	104.5	108.0	88.6	98.7	97.4	75.3	101.0
III	104.2	107.6	87.6	99.7	98.8	78.5	101.1
IV	107.3	120.1	88.6	98.8	98.0	77.2	103.7
1975 3/ I	103.7	91.2	86.6	100.2	99.7	81.4	99.4
II	97.8	102.7	83.7	100.4	99.4	76.9	97.4
III	98.7	107.6	84.7	101.0	99.6	72.4	98.4
IV	103.9	124.2	87.6	100.6	99.6	75.6	102.9

1/ Civilian consumption only. Quantities of individual foods, measured in pounds equivalent to the form sold by retail food stores, combined in terms of average 1957-59 retail prices.

2/ Excludes fish and honey.

3/ Preliminary.

0.6 pounds below 1974. Consumption of young chicken was down about 0.3 pounds per person to 37.2 pounds. Consumption in the first half of 1976 will increase moderately from a year earlier because of the expected increase in broiler production.

Turkey meat output lagged year-earlier rates during much of 1975 but gained late in the year. Output for all of 1975 was down about 7 percent; however, for October-December it was around 7 percent above 1974 levels. Favorable profits in the second half of 1975 encouraged producers to expand their poult production sharply for first half of 1976 marketings. Marketings during January-June 1976 are expected to be 15-20 percent larger than a year earlier. In early December 1975 turkey producers indicated they planned to produce 6 percent more turkeys in 1976 than in 1975.

Turkey consumption during 1975 totaled around 8.4 pounds per person (ready-to-cook weight) compared with 8.8 pounds in 1974. Consumption did not decline as much as production last year. Cold storage stocks were drawn down by 71 million to 204 million pounds on January 1, 1976. The expected increase in production during the first half of 1976 may a little more than offset the reduced beginning stocks. Thus, January-June consumption may differ little from first half 1975 consumption of 2.5 pounds per person.

Fish—Seafood markets returned to more normal conditions in 1975 from an oversupply situation which existed throughout the prior year. Cold storage holdings were reduced to more manageable levels, and price reductions early in the year stimulated sales for some items, particularly tuna and frozen fillets. Per capita consumption for all fishery products in 1975 was estimated at 12 pounds (edible weight), about the same as a year earlier.

Per capita consumption of fresh and frozen items remained at 6.8 pounds as increased sales of some products were offset by reductions for others. Consumption of fillets increased 18 percent from a year ago; however stick and portion sales declined 4 percent despite modest second half gains. Shrimp consumption registered a 3-percent decline due to the overall shortage of supply.

In canned fishery products, the large inventory of tuna was reduced to more normal levels as imports were reduced and price discounts apparently improved sales. Canned salmon and sardines continue to be in short supply. For the year, consumption of canned fishery products remained unchanged at 4.7 pounds per capita.

Eggs—*Egg production* in 1975 was down almost 3 percent from 1974 as a result of a continued reduction in layer numbers. Layer numbers on January 1, 1976 were 2 percent below a year earlier. There are about 4 percent more replacement pullets to enter the flock during January-March but 6 percent fewer for April-June. Thus, layer numbers should show some gains on 1975 this winter before dropping back to near a year ago in the spring. As a result, egg production during the first half of 1976 may be near January-June 1975.

The use of eggs continued to drop in 1975 in line with the decline in production. Per capita use in 1975 was 277 eggs—down about 10 eggs from 1974 and the smallest per capita use in recent history.

Dairy—Per capita dairy consumption in 1975 increased about 1 percent. Cheese consumption was down fractionally, while milk use rose about 4 pounds. Ice cream consumption advanced about 1½ pounds to almost 19 pounds.

Another 1-percent advance in dairy product consumption seems likely in 1976. Milk and ice cream consumption will about match 1975 levels, while cheese and condensed milk consumption will be higher and butter consumption will slip.

Fats and Oils—Total use of food fats and oils per person in 1975 was down from 1974, with lard accounting for much of the decline. The consumption of salad and cooking oils, margarine, and shortening showed little change.

Per capita consumption of food fats and oils in 1976 is expected to total about 58 pounds. Shortening and cooking and salad oils will primarily account for the increase—lard and butter consumption may decline slightly.

Peanut supplies are record large and more than enough to meet food and farm requirements. Use is up in major outlets such as peanut candy, salted peanuts, and peanut butter. Consumption of peanuts in 1975/76 is expected to be up and may total near 7 pounds (shelled basis), compared with about 6½ pounds last year.

Vegetables—Per capita vegetable consumption in 1975 was about the same as in 1974. A small boost in processed use offset a small decline in fresh use.

Larger packs of tomatoes and its products along with relatively stable wholesale prices account for the gain in per capita canned vegtable use in 1975. Although lower frozen vegetable use was partially offsetting, total processed consumption was up slightly last year.

Fresh vegetable supplies during the first half of 1975 were 5 percent smaller than a year earlier. This included lower domestic output as well as imports. For the balance of the year, production was a little above a year earlier, but per capita consumption for the year was down slightly.

Vegetable consumption in 1976 may rise slightly with the gain coming mostly from processed use. The combined pack of canned and frozen vegetables in 1975/76 again was moderately larger than the previous season. With sharply larger carryovers of both canned and frozen vegetables, the total available supply is the largest since 1971/72.

Table 6--Civilian per capita consumption of major food commodities (retail weight) and civilian population, selected years 1/

Commodity	1960	1967	1973	1974	1975 5/	1975 as percent of 1974
			Pounds			Percent
Meats:						
Beef	134.2	145.1	142.3	152.2	145.2	95
Veal	64.3	78.8	81.1	86.4	88.8	103
Lamb and mutton	5.2	3.2	1.5	1.9	3.4	179
Pork (excluding lard)	4.3	3.5	2.4	2.0	1.9	95
	60.4	59.6	57.3	61.9	51.0	82
Fish (edible weight)	10.3	10.6	12.7	12.0	12.0	100
Poultry products:						
Eggs	42.4	40.7	37.3	36.4	35.2	97
Chicken (ready-to-cook)	27.8	36.5	40.7	41.1	40.5	99
Turkey (ready-to-cook)	6.2	8.6	8.5	8.8	8.4	95
Dairy products:						
Cheese	8.3	10.1	13.7	14.6	14.5	99
Condensed and evaporated milk	13.7	9.0	6.0	5.6	5.3	95
Fluid milk and cream (product weight)	32.1	30.3	29.3	28.8	29.2	101
Ice cream (product weight)	18.3	17.8	17.5	17.5	18.8	107
Fats and Oils--Total, fat content	45.3	49.4	54.4	53.5	50.4	94
Butter (actual weight)	7.5	5.5	4.8	4.6	4.7	102
Margarine (actual weight)	9.4	10.5	11.3	11.3	11.0	97
Lard	7.6	5.4	3.4	3.2	2.8	88
Shortening	12.6	15.9	17.3	17.0	16.5	97
Other edible fats and oils	11.5	15.2	20.8	19.4	18.5	95
Fruits:						
Fresh:	89.6	79.1	73.4	76.2	78.9	104
Citrus	32.5	30.6	26.4	28.7	29.9	104
Apples (commercial)	17.6	15.6	13.9	15.3	16.0	105
Other (excluding melons)	39.5	32.9	33.1	32.2	33.0	102
Processed:						
Canned fruit	22.6	22.6	21.4	19.7	20.9	106
Canned juice	13.0	11.7	15.9	14.7	14.5	99
Frozen (including juices)	9.1	10.1	11.2	11.3	12.4	110
Chilled citrus juices	2.1	4.4	5.3	5.2	5.7	110
Dried	3.1	2.8	2.6	2.4	2.8	117
Vegetables:						
Fresh 2/	96.0	90.8	92.2	94.9	91.9	97
Canned, excluding potatoes and sweetpotatoes	43.4	48.8	54.1	53.4	55.1	103
Frozen, excluding potatoes	7.0	9.0	10.7	10.2	9.7	95
Potatoes (including fresh equivalent of processed)	103.7	104.5	113.2	108.1	119.2	110
Sweetpotatoes (including fresh equivalent of processed)	6.4	3.3	4.6	4.9	4.8	96
Grains:						
Wheat flour 3/	118	112	109	99	100	101
Rice	6.1	7.5	7.0	7.3	7.4	101
Other:						
Coffee	11.6	11.1	10.1	9.4	9.2	98
Tea	0.6	0.7	0.8	0.8	0.8	0
Cocoa	2.9	3.4	3.4	2.7	2.2	81
Peanuts (shelled)	4.9	5.7	6.6	6.4	6.9	108
Dry edible beans	7.3	6.9	6.5	6.7	6.4	96
Melons	23.2	20.3	19.7	17.2	17.6	102
Sugar (refined)	97.6	97.3	102.1	97.0	88.7	91
			Millions			
Civilian population 4/	178.1	195.3	208.1	209.7	211.4	101

1/ Quantity in pounds, retail weight unless otherwise shown. Data on calendar year basis except for dried fruits, fresh citrus fruits, peanuts, and rice which are on a crop-year basis.
2/ Commercial production for sale as fresh produce.
3/ White, whole wheat, and semolina flour including use in bakery products.
4/ July 1 civilian population used to derive per capita figures expect for sugar, dried fruits, peanuts, and rice.
5/ Preliminary.

NOTE: In previous National Food Situations, data in this table were shown in primary distribution weight (e.g. carcass weight for meat).

Canned peas, beets, and snap beans, and concentrated tomato products are in heavy supply at this time. Disappearance of processed vegetables was disappointing through most of 1975, but recently there are signs that movement has picked up once more.

Fresh vegetable supplies this winter probably will turn out to be slightly larger than a year earlier. Domestic acreage this winter is 6 percent above a year ago. If yields follow historical patterns, then production would be at least slightly larger this year. Imports of tomatoes, cucumbers, and peppers from Mexico are expected to be a little more as well, but remaining domestic stocks of onions are small and supplies will be tight until the spring harvest gets under way.

Fresh potato consumption was up slightly in 1975, primarily as a result of larger stocks carried over from the record 1974 fall harvest. Consumption of processed products was also up slightly last year.

The 1975 fall potato crop was down 8 percent from a year earlier resulting in smaller storage stocks at the beginning of this year. The seasonally small winter crop is estimated to be slightly larger than a year ago, and the estimated spring crop acreage is up sharply from last year's low level. However, total fresh potato supplies are likely to be tight through most of the first half of 1976. Relatively large inventories of processed potatoes may offset lower production to maintain consumption near last year's level.

Fruits—Total per capita fruit consumption rose 5 percent in 1975. Per capita use of processed items rose about 6 percent after dropping in 1974. Consumption of fresh fruit rose about 4 percent in 1975 following a sharp increase in 1974 and may reach the highest level in 5 years.

Looking ahead, total fruit consumption in 1976 may rise about 1 percent, with a small increase in processed primarily responsible for the increase. Fresh fruit consumption will be about the same as in 1975.

As of February 1, prospects point to a citrus crop nearly as large as the record 1974/75 season and 7 percent above 1973/74. Although the orange crop may be down about 3 percent, supplies of grapefruit are expected to be record large during the 1975/76 season. Export shipments, which so far are up sharply, may offset some of the price-depressing impact of the prospective record grapefruit crop.

U.S. fruit growers harvested an estimated 11.9 million tons of deciduous fruit and berries during 1975. This was 4 percent larger than the previous year and 6 percent above 1973. The greatest tonnage increases were in apples, grapes, and apricots, while the largest declines were indicated for peaches, figs and tart cherries.

Available supplies for fresh market were larger this season since processor demand was limited as a result of larger carryover stocks of many processed noncitrus items. Even with a small reduction in pack, total supplies of canned noncitrus fruit during 1975/76 were still large because of the larger canner stocks at the beginning of the season.

Cereal and Bakery Products—Consumption of flour and other cereal products rose 1 percent in 1975, following a decline of about 2 percent in 1974. Last year's rise in consumption was associated with greater retail price stability. A small upturn in per capita consumption is expected in 1976.

Sugar—Per capita refined sugar consumption in 1975 was less than 90 pounds, down from 97 pounds in 1974 and the lowest in three decades. Not since the sugar-short years of 1942-46 has U.S. per capita consumption fallen below 90 pounds. The 1975 decline is being attributed to consumer resistance to high prices for sugar and products containing sugar.

U.S. sugar deliveries in calendar year 1975 totaled 9.93 million tons, raw value, down 1.31 million tons from 1974. Virtually all the drop occurred in the first half of 1975 when retail sugar prices were still high. During the last quarter of 1975, deliveries were 5 percent larger than fourth quarter 1974 deliveries.

U.S. sugar deliveries and consumption are expected to bounce back in 1976. Total deliveries are expected to fall within a range of 10.5 to 11.0 million tons, raw value, and per capita consumption of refined sugar is expected to average between 92 and 97 pounds.

Beverages—Per capita coffee consumption totaled 12.3 pounds (green bean equivalent—9.2 pounds retail weight), in 1975, continuing the downtrend which began in 1962. Regular coffee consumption totaled 9.9 pounds last year, while instant consumption totaled 2.4 pounds (green bean equivalent).

Domestic roastings totaled nearly 2.5 billion pounds last year, about the same as in 1974. Instant roastings declined about 1 percent, while regular roastings remained steady. This is somewhat of a change from earlier years, when regular roastings were declining more rapidly than instant.

U.S. green coffee imports totaled 2.68 billion pounds in calendar 1975, up over 5 percent from 1974. Moreover, after subtracting the prospective 100 million pounds of green coffee re-exported to other countries, net imports of green beans were up about 200 million pounds from net imports in calendar 1974. Roasted coffee imports in 1975 were 43 million pounds (GBE), up over two-thirds from

Table 7--Livestock, crop and total farm food commodities: Supply-utilization indexes by component and relationship of components to annual utilization, 1970-75 1/

Year	Supply			Total annual utilization	Utilization					
					Domestic use					Exports and shipments 4/
					Food		Non-food		Total	
	Production	Imports 2/	Stocks 3/		Civilian	Military	Seed and feed	Other		
	A--All food commodities indexes: (1967=100) 5/									
1970	98.4	105.4	120.7	105.7	105.8	70.2	---	90.6	104.5	114.0
1971	108.0	110.8	111.8	107.6	108.3	62.6	---	98.7	107.1	111.9
1972	104.7	115.2	123.4	111.2	109.8	49.8	---	92.5	107.9	135.0
1973	107.0	115.5	118.3	113.7	106.5	39.2	---	103.2	105.0	178.3
1974	106.0	104.1	112.2	113.0	109.0	36.0	---	103.0	107.3	154.8
1975 6/	118.3	100.6	102.3	114.3	108.5	40.1	---	104.0	106.9	168.3
	Livestock food commodities (1967=100)									
1970	103.5	124.6	97.5	104.8	105.8	71.6	102.0	95.8	104.7	108.7
1971	106.1	116.8	106.9	107.4	108.5	61.4	99.1	89.9	106.9	127.8
1972	105.6	134.1	102.4	107.7	109.2	49.3	99.5	92.2	107.4	121.5
1973	100.6	145.0	93.1	102.6	104.5	37.0	97.5	81.8	102.4	109.9
1974	105.4	119.2	103.2	106.5	108.9	34.6	94.5	89.9	106.5	106.0
1975 6/	104.0	116.2	111.6	105.7	107.8	38.4	82.7	91.9	105.4	120.9
	Crop food commodities (1967=100)									
1970	98.1	100.6	121.9	109.3	105.8	64.9	114.2	88.2	108.1	114.7
1971	113.5	109.3	112.1	111.0	108.0	67.2	117.5	103.0	111.3	109.7
1972	111.6	110.5	124.4	119.9	111.0	51.9	126.8	92.7	122.2	136.9
1973	119.5	108.2	119.6	128.1	111.0	47.3	121.1	113.4	114.7	187.9
1974	108.6	100.4	112.6	119.4	109.3	41.2	112.1	109.3	109.9	161.6
1975 6/	126.0	96.8	101.8	116.6	110.2	46.6	94.9	109.8	100.2	174.9
	B--All food commodities: Percentage of annual utilization 5/									
1970	86.6	10.3	3.1	100.0	83.5	1.2	---	2.4	87.1	12.9
1971	93.3	10.6	-3.9	100.0	83.9	1.1	---	2.6	87.6	12.4
1972	87.6	10.7	1.7	100.0	82.4	.8	---	2.3	85.5	14.5
1973	87.5	10.5	2.0	100.0	78.1	.6	---	2.6	81.3	18.7
1974	87.3	9.5	3.2	100.0	80.4	.6	---	2.6	83.6	16.4
1975 6/	96.3	9.1	-5.4	100.0	79.1	.7	---	2.6	82.4	17.6
	Livestock food commodities: Percentage of annual utilization									
1970	96.4	3.9	-.3	100.0	92.7	1.6	2.0	1.3	97.6	2.4
1971	96.3	3.6	.1	100.0	92.8	1.3	1.9	1.2	97.2	2.8
1972	95.7	4.1	.2	100.0	93.2	1.1	1.9	1.2	97.4	2.6
1973	95.7	4.6	-.3	100.0	93.6	.8	2.0	1.2	97.5	2.5
1974	96.5	3.7	-.2	100.0	93.8	.8	1.9	1.2	97.7	2.3
1975 6/	95.9	3.6	.5	100.0	93.6	.8	1.6	1.3	97.3	2.7
	Crop food commodities: Percentage of annual utilization									
1970	81.1	13.4	5.5	100.0	43.2	.4	34.5	2.7	80.8	19.2
1971	92.5	14.3	-6.8	100.0	43.4	.4	35.0	3.1	81.9	18.1
1972	84.1	13.4	2.5	100.0	41.2	.3	35.0	2.6	79.1	20.9
1973	84.4	12.3	3.3	100.0	38.6	.3	31.3	2.9	73.1	26.9
1974	82.3	12.2	5.5	100.0	40.8	.2	31.1	3.1	75.2	24.8
1975 6/	97.7	12.1	9.8	100.0	42.2	.3	26.9	3.1	72.5	27.5

1/ Quantities weighted by constant farm prices. Domestic use allocated on basis of value of processed products. Includes essentially all commodities having any U.S. food use; for item list, see NFS-124; for 1950-67 data see NFS-136. 2/ Includes shipments from U.S. Territories. 3/ Farm (other than live animals), commercial, and Government program holdings. Section A: January 1; derived by applying annual changes to January 1961 level. Section B: Represents stock changes. Negatives indicate stock increases; positives signify withdrawals. 4/ Includes shipments to U.S. Territories. 5/ Feed and seed omitted from total commodities to avoid double counting of use through livestock. 6/ Preliminary.

1974. Instant coffee imports were 122 million pounds (GBE), down sharply from the 181 million pounds in 1974.

The 1975/76 world coffee crop was estimated at 72.5 million bags (132.3 pounds each) as of December 1975. If realized, the 1975/76 crop will be down about a tenth from the 1974/75 crop. Freezing weather in mid-July severely damaged coffee trees in Brazil. While the frost had little effect on the size of the 1975 Brazilian crop, the 1976 crop will be sharply reduced.

Prospective record retail coffee prices this year likely will further inhibit use. Thus, per capita consumption in 1976 is expected to decline further from the 1975 level.

Per capita tea consumption totaled 0.80 pounds (dry leaf basis) in 1975, the same as in 1974. While tea consumption held up last year, imports totaled a little under 160 million pounds, down almost 20 million pounds from 1974. Larger imports are needed this year to supply the prospective consumption of about the same level as last year.

U.S. per capita cocoa consumption totaled 3.0 pounds (bean equivalent—BE) in 1975 (2.2 pounds retail weight), down nearly a fifth from 1974. A substantial drop in the domestic grind and in imports of semiprocessed products contributed to lower consumption.

SUPPLY AND UTILIZATION

Net production of U.S. farm food commodities in 1975 totaled almost 12 percent above 1974, reflecting a 16-percent gain in food crops as well as the small feed use of crops. However, the large crop and perhaps some holdback in marketings resulted in a big buildup in inventories of food crops. Total domestic use, excluding feed and seed, declined slightly from 1974 to 1975. Most of this decrease occurred in food use, the major utilization component of farm food commodities. However, the volume of exports, the second significant utilization component, grew by more than 9 percent. Larger exports more than offset the decline in domestic consumption, so that total disappearance in 1975 was up slightly from 1974.

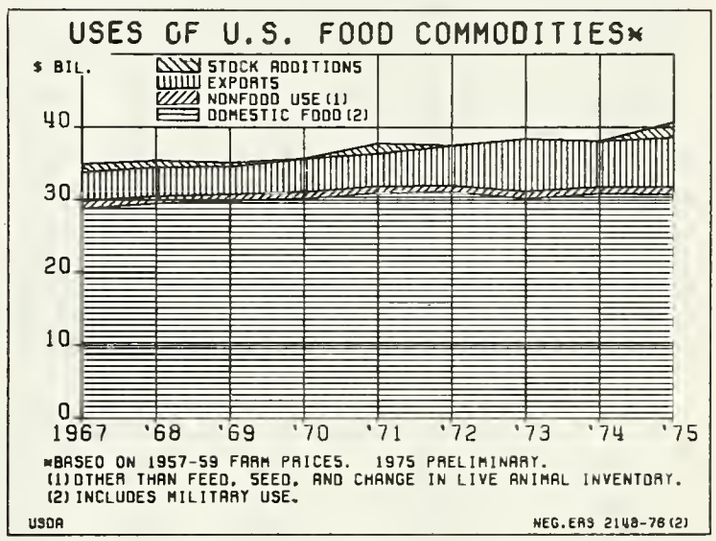

Figure 12

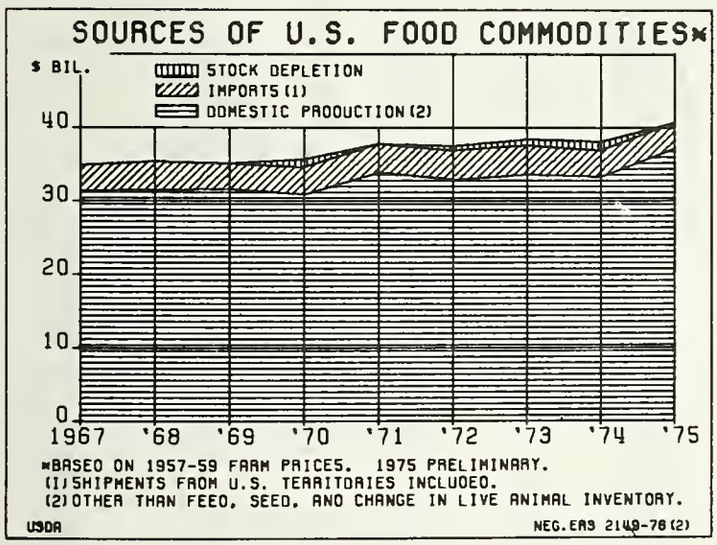

Figure 11

Crop food commodities played a significant part in the supply and utilization patterns of 1975. The supply-utilization situation for crop food commodities was shaped in large part by the short crops of 1974. Drought-reduced harvests in 1974 precipitated increased acreage and plantings of crops and, along with more favorable weather conditions, resulted in record production levels in 1975. Cutbacks in domestic livestock feeding and increased exports, especially of wheat, were significant in 1975.

On the supply side, gross production of crop food commodities increased 16 percent, compared to the 9-percent reduction that occurred in 1974. Most of the increase in production for crop food commodities occurred in grains and oilseeds. Corn, wheat, and soybean output ranged 20-25 percent larger in 1974. Since much of this increase was in crops marketed through next summer, this will have a big impact on 1976 supplies of cereal and oil products. Crop imports, which account for about an eighth of net use of crop food commodities, fell by 4 percent from 1974 to 1975, with largest

Table 8.--Livestock, crop, and total farm food commodities: Supply-utilization farm equivalent aggregates 1/
(Million Dollars)

Year	Supply			Total annual utilization	Utilization					
					Domestic Use					Exports and shipments
					Food		Non-food		Total	
	Production	Imports	Stock changes 2/		Civilian	Military	Seed and feed	Other		
	A.--All food commodities									
1967	31,439	3,486	-1,133	33,792	28,177	628	---	951	29,756	4,036
1968	31,515	3,886	-918	34,483	28,863	615	---	954	30,432	4,051
1969	31,637	3,532	-520	34,649	29,395	524	---	958	30,877	3,772
1970	30,927	3,675	1,100	35,702	29,799	441	---	862	31,102	4,600
1971	33,946	3,862	-1,432	36,376	30,528	393	---	939	31,860	4,516
1972	32,924	4,017	628	37,569	30,926	313	---	880	32,119	5,450
1973	33,640	4,028	763	38,431	30,008	246	---	981	31,235	7,196
1974	33,316	3,628	1,225	38,169	30,716	226	---	980	31,922	6,247
1975 3/	37,199	3,507	-2,093	38,613	30,580	252	---	989	31,821	6,792
	B.--Livestock food commodities									
1967	20,792	698	-171	21,319	19,577	497	440	308	20,822	497
1968	20,906	761	97	21,764	20,000	496	425	314	21,235	529
1969	20,991	794	89	21,874	20,175	424	440	314	21,353	521
1970	21,529	870	-56	22,343	20,703	356	449	295	21,803	540
1971	22,054	815	27	22,896	21,243	305	436	277	22,261	635
1972	21,964	936	55	22,955	21,384	245	438	284	22,351	604
1973	20,920	1,012	-60	21,872	20,461	184	429	252	21,326	546
1974	21,922	832	-50	22,704	21,312	172	416	277	22,177	527
1975 3/	21,619	811	109	22,539	21,100	191	364	283	21,938	601
	C.--Crop food commodities									
1967	17,445	2,810	-962	19,293	8,600	131	6,380	643	15,754	3,539
1968	17,718	3,148	-1,015	19,851	8,863	119	6,707	640	16,329	3,522
1969	18,100	2,761	-609	20,252	9,220	100	7,037	644	17,001	3,251
1970	17,108	2,828	1,156	21,092	9,096	85	7,284	567	17,032	4,060
1971	19,798	3,071	-1,459	21,410	9,285	88	7,494	662	17,529	3,881
1972	19,461	3,105	573	23,139	9,542	68	8,087	596	18,293	4,846
1973	20,853	3,040	823	24,716	9,547	62	7,728	729	18,066	6,650
1974	18,939	2,820	1,275	23,034	9,404	54	7,153	703	17,314	5,720
1975 3/	21,978	2,719	-2,202	22,495	9,480	61	6,057	706	16,304	6,191

1/ Quantities weighted by 1957-59 farm prices.
2/ Negatives indicate stock increases, positives signify withdrawals.
3/ Preliminary.

declines in sugar, bananas, and tea. The small 1974 crops, reduced inventories, and declining imports diminished food crop supplies in 1975. However, this year's record large crop output resulted in a big build up in stocks, the third component of supply. Stocks of major food crops, which had been depleted over the 1972-74 period, were much larger by the end of 1975, totaling about a fifth above a year earlier.

Most of the decline in the total use of crop food commodities in 1975 was associated with cutbacks in livestock production because of short supplies and high feed costs. One-fourth of utilization of crop food commodities was used for domestic feed in 1975, compared with about one-third in a more normal supply-use year. However, this past year's decline reflected the impact of the reduced harvests of 1974—especially the smaller harvest of corn—higher prices, and uncertain weather conditions.

Crop food exports, which accounted for 91 percent of total farm food exports last year, increased by more than 8 percent from 1974. Wheat exports (including the wheat equivalent of flour exports) increased over 22 percent. The large wheat purchases by the Soviet Union are partially reflected in this increase and will influence the utilization patterns of 1976.

In contrast to crops, utilization of livestock products fell slightly from 1974 to 1975. Total output of livestock commodities in 1975 was down about 1 percent from 1974. The decline was due mainly to the high costs and the tight supply of feed during the 1974/75 feeding year. Pork production in 1975 fell about 17 percent. Production of sheep and lambs, poultry, and eggs also declined but less sharply. The output of grain-fed beef also was down sharply for the year. But record large slaughter of cattle and calves with little or no grain feeding offset this decline and pushed total beef and veal output up about 5½ percent.

Imports of livestock food commodities, which account for only 3 to 4 percent of total use of these commodities, decreased about 2½ percent. Imports of pork, dairy products, and eggs all fell short of 1974 levels.

Total domestic food use, the major portion of utilization of livestock food commodities, fell by 1 percent. Most of this decline occurred in food use, with largest declines for pork and lamb consumption. Total domestic nonfood use (excluding feed and seed) of livestock food commodities increased by a little more than 2 percent from last year. Nonfood use was only 3 percent of gross utilization and was not enough to balance off the declines in food use. However, exports of livestock food products, which account for less than 3 percent of utilization, increased 14 percent last year. Increases occurred in all categories led by red meats, chicken, and the nonfat milk equivalent of dairy products.

Table 9--Production of major food commodities, selected years 1/

Commodity	Unit	1967	1971	1973	1974	1975	
						Total 2/	Change from 1974
Meats (carcass weight) - Total	Mil. lb.	34,238	37,795	34,899	37,894	36,796	-3
Beef	"	20,219	21,902	21,277	23,138	23,979	4
Veal	"	792	546	357	486	877	80
Lamb and mutton	"	646	555	514	465	412	-11
Pork (excluding lard)	"	12,581	14,792	12,751	13,805	11,528	-16
Poultry and eggs 3/							
Eggs	Mil. doz.	5.777	5,846	5,547	5,489	5,349	-3
Chicken (ready-to-cook)	Mil. lb.	7,379	8,503	8,750	8,919	8,800	-1
Turkey (ready-to-cook)	"	1,870	1,779	1,933	1,912	1,785	-7
Dairy products							
Total milk	Bil. lb.	118.7	118.5	115.4	115.4	115.3	11/
Cheese 4/	Mil. lb.	1,919	2,374	2,685	2,931	2,796	-5
Condensed and evaporated milk	"	1,886	1,492	1,338	1,286	1,162	-10
Ice Cream (product weight)	"	3,578	3,676	3,714	3,753	4,050	8
Fats and Oils--Total fat content 5/	"	14,546	18,393	17,806	19,393	16,125	-17
Butter (actual weight)	"	1,238	1,147	919	962	960	11/
Lard 6/	"	2,076	1,960	1,254	1,366	995	-27
Margarine (actual weight)	"	2,114	2,290	2,359	2,398	2,400	11/
Shortening	"	3,226	3,515	3,636	3,703	3,713	11/
Other edible fats and oils 7/	"	11,473	15,505	15,812	17,252	14,500	-16
Fruits							
Fresh:							
Citrus	"	7,454	6,986	7,132	7,318	8,146	11
Apples (commercial)	"	3,178	3,482	3,515	3,650	4,100	12
Other (excluding melons)	"	3,055	3,598	3,556	3,801	4,076	7
Processed:							
Canned fruit	"	4,354	4,313	4,263	4,762	4,481	-6
Canned fruit juices	"	2,781	3,161	3,366	2,986	2,758	-8
Frozen (including juice)	"	2,136	2,082	2,713	2,548	2,766	9
Dried	"	687	635	868	771	870	13
Vegetables 8/							
Fresh 9/	"	21,640	22,259	22,121	22,392	22,694	1
Canned	"	10,703	10,338	10,845	11,713	13,078	12
Frozen	"	1,993	1,952	2,379	2,408	2,250	-7
Potatoes and sweetpotatoes							
Potatoes	Mil. cwt.	306	319	299	341	316	-7
Frozen potato products	Mil. lb.	1,491	2,565	2,691	2,985	3,110	4
Sweetpotatoes	Mil. cwt.	13.5	11.7	12.5	13.9	13.6	-2
Grains							
Wheat	Mil. bu.	1,508	1,618	1,705	1,796	2,134	19
Rice, rough	Mil. cwt.	85.1	83.8	85.4	92.8	112.4	21
Corn, grain only	Mil. bu.	4,860	5,641	5,647	4,664	5,767	24
Other							
Dry edible beans 10/	Mil. lb.	1,522	1,592	1,639	2,034	1,720	-15
Melons 9/	"	4,339	4,492	4,331	3,782	3,921	4
Sugar raw basis	1,000 tons	5,294	5,819	6,066	5,661	6,379	13
Peanuts, farmers' stock	Mil. lb.	2,477	3,005	3,474	3,668	3,867	5

1/ Calendar year basis except: Fresh citrus fruit for which the season begins in the fall of the previous year; dried fruits on a pack year beginning year indicated; rice on a marketing year ending year indicated. 50-State basis.

2/ Preliminary.

3/ Includes an allowance for nonfarm production.

4/ Excludes full skim, cottage, pot, and baker's cheese.

5/ Includes butter, lard and "other edible fats and oils".

6/ Includes amount used in manufactured food and nonfood products.

7/ Includes cottonseed, peanut, soybean, corn, edible olive, and oleo oils; also oleo stocks, oleostearine, and edible tallow which are processed into margarine, shortening, cooking and salad oils, and nonfood items.

8/ Excludes potatoes and sweeepotatoes.

9/ Commercial production for distant markets and for local markets; includes quantities not harvested. Excludes farm garden output for farm household use.

10/ Cleaned basis.

11/ Less than 0.5 percent.

FOOD PROCESSORS AND OPEN DATE LABELING

by
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ABSTRACT: Roughly two-fifths of the food processors who responded to a 1973 ERS survey on date labeling said they have open dates for consumer use on some products they offer. The last day of sale (pull date) was the most frequently used type of date, but words to explain the meaning of the date to the shopper apparently were seldom used. Fluid dairy products were the most likely candidates for open date labeling, followed by other dairy products, meat, poultry and fish.

KEY WORDS: Expiration date, open dating, pack date, pull date, quality assurance date.

When mandatory open date labeling of food products was first proposed in Congress, ERS was asked to study the need for and feasibility of open date labeling. This article highlights the findings of a 1973 mail survey on the extent and nature of voluntary open date labeling among food processors.

Definitions

Several terms must be defined so that the reader will have a clear understanding of the findings presented. First, an *open date* is a calendar date that can be easily read and understood by the shopper. It is confused with coded dates which the shopper cannot understand without knowing the coding system. Four types of open dates are generally discussed. These are:

1. Pack date - the date of final processing or packaging.
2. Pull date - the last recommended day of retail sale which allows for sufficient home storage and use time—the date the product is "pulled" off the store shelf.
3. Quality assurance date - the date after which the product is not likely to be at peak quality. "For maximum enjoyment, use before *(date)*" or "Best when used by *(date)*" are examples of quality assurance or freshness dates.
4. Expiration date - The last day the product should be used for assured quality. "Do not use after *(date)*" would be an expiration date, the end of the product's useful life.

HIGHLIGHTS

Roughly two-fifths of the processors who responded to the mail survey said they offered products that are open dated for consumer use. Size of firm seemed to be an important factor with large firms twice as likely to use open dating as small firms. Two-thirds of the respondents reported having begun open dating within the previous 5 years, and about a fifth said they had begun to open date less than 1 year before the survey was made.

Seventy-two percent of the firms said they open dated refrigerated foods on the survey form. For comparison, we found that only 15 percent mentioned baked products, 13 percent frozen products, and less than 10 percent listed canned, dried, and fresh products.

Dairy products seemed to be the most likely candidates for open dating. The fluid dairy category was reported by 47 percent of the respondents and non fluid dairy by 31 percent. About one-fourth of

Use of open dating by food processors, Spring 1973

Use of open dating	Size of Company						Total	
	Large		Medium		Small			
	No.	*Pct.*	*No.*	*Pct.*	*No.*	*Pct.*	*No.*	*Pct.*
Use open dating	57	66	93	45	119	34	269	42
Do not use open dating	27	32	104	51	220	62	351	54
Reported codes as open dates	2	2	8	4	15	4	25	4
	86	100	205	100	354	100	645	100

the firms mentioned a product from the meat, poultry, and fish category.

About half the respondents indicated they open dated products in only one of the nine product categories. Nearly 8 out of 10 reported that they used the same type of date and 7 of 10 said they presented the date information in the same way on all their open dated products.

Type of Date and Storage Instructions

The pull date was the most popular choice, and it was the only date used by about half the respondents. But although the pull date seemed to be the favorite, the shopper could still be faced with confusing date information. Twenty percent of the firms indicated they used different types of dates on different products. Thus, the shoppers can't be assured that the dates they see will have the same meaning among different products of the same firm. Only 10 percent of all the respondents said they used explanatory words on any of their open dated products.

In August 1974, USDA's Animal and Plant Health Inspection Service issued a regulation on the calendar date labeling of products covered by the Federal Meat Inspection Act and the Poultry Products Inspection Act. While the regulation does not require calendar dates on the products, it states that "an explanatory statement must accompany any calendar date shown . . . to prevent misleading labeling."[1] Such a requirement is particularly significant in view of very limited use of explanatory statements by food processors who responded to the survey. Further discussion of date information that is useful to the consumer is presented later in this article.

A little less than half the respondents said they provided storage instructions along with the date information. About one-third reported they provide such information for all open-dated products, and the remainder sometimes do so.

What the Date Looks Like

Most processors (70 percent) used only one method on the products that they open dated. Generally they favored the use of numeric dating (that is, 3-23 to indicate March 23). The alpha-numeric (Mar. 23) system—perhaps the most readily understandable—was used exclusively by fewer than a third of the respondents. A number of firms used several different dating systems.

Eighty-five percent of the respondents said they used the month-day or month-day-year form. Such dates were usually shown in a numeric or an alpha-numeric form. Most respondents used only one method, although some did not show the date the same way on all products. Less frequently used methods like day of month (23) or day of year (83) are not as likely to be understood by the shopper.

The method used to display the date information on the package has a lot to do with whether the information is readable and thus possibly usable to the shopper. Nearly half the respondents who answered this question said they use ink or an ink stamp to put the date on the package and another

[1]The Federal Register, Vol. 39, No. 154, August 8, 1974; page 28515.

Types of dates reportedly used by food processors, Spring 1973

Type of date	Processors reporting use of more than one type of date		Types of dates	Processors reporting use of only one date type	
	No.	*Pct*		*No.*	*Pct.*
No answer	6	2.2	Pack, Pull	24	8.9
Pack	29	10.8	Quality assurance, Pack	11	4.1
Pull	143	53.2	Quality assurance, Pull	6	2.2
Quality assurance	17	6.3	Quality assurance, Pull Pack	1	.4
Expiration	22	8.2	Expiration, Pack	6	2.2
Total using one type	211	78.4	Expiration, Pull	1	.4
			Expiration, Quality assurance	1	.4
Total respondents	269	100	Expiration, Pack, Quality assurance	1	.4
			Expiration, Pull, Quality assurance	1	.4
			Total using more than one type	52	19.3
			Total respondents	269	100

third mentioned more than one method, including ink. Fewer than a fifth said the date was cut into the package - a technique that often makes the date difficult to read.

Dates were located most often on the carton gable, particularly in the case of fluid dairy products. Other frequent locations were the bottom of the package (20 percent), the top other than the gable (15 percent), the label (12 percent), and the side or on a tie closure (8 percent).

Opinions on Open Dating

A sizable number of processors felt their customers were relatively indifferent to open dating, or said "consumers' interest had waned." However, almost a third described consumer reaction as generally good. Medium firms were most inclined to describe consumer response as positive, while large firms were least impressed with consumer reaction. Fourteen percent of the firms who open date said they have done so for 10 years or more. These respondents were a little more likely than the group as a whole to describe consumer reaction as favorable and less likely to say "there was little reaction."

The type of date reported by the processor didn't seem to have too much bearing on the reactions they attributed to their customers. However, those who used quality assurance dates were a bit more inclined to feel consumer response was negligible, while those who used expiration dates tended to say response was generally good. However, only 13 percent of the respondents said they used quality assurance dates and 12 percent said they used expiration dates on all or some products.

Respondents who processed refrigerated foods were inclined to rate consumer response as favorable (38 percent) while only 15 percent of those who processed baked goods reported positive reaction.

Fluid dairy products were open dated by more respondents than any other product category, and nonfluid dairy products were the second most frequently mentioned group. About one-third of the processors who open dated fluid dairy products and one-fourth of those who dated nonfluid dairy products described consumer reaction as favorable. While this may seem surprisingly low because of consumers' concern about the freshness of these products,[2] research has also shown that consumers do not often contact the food processor even when they are dissatisfied with a product.[3] So it is not likely that the typical shopper will contact the processor to praise a labeling practice.

Favorable responses by consumers were noted most frequently by processors who open date meat, poultry, or fish products—nearly half said consumer reactions were generally good. In fact, this was the only category in which "little or no reaction" did not account for well over half the responses.

Processors were also asked for their own viewpoint on providing date information for consumers—if they favored it in general, for selected products only, or not at all. Responses were quite mixed. Roughly a fourth of the firms who responded to this question felt that open dating was helpful in case rotation, that it simplified and facilitated quality control, that it was useful for store employees, and that it was a good merchandising tool. About a fifth of the firms also commented on the benefits to the consumer—assurance of freshness and confidence in the product and the merchant—as well as the fact that consumers want

[2]Taylor, Eileen F. A Case Study of Food Dating in Selected Chicago Supermarkets, U.S. Dept. of Agr., MRR 943, November 1971.

[3]Handy, Charles R. and Pfaff, Martin. Consumer Satisfaction with Food Products and Marketing Services, U.S. Department of Agriculture, AER 281, March 1975.

Processors' opinions of open dating, by size of company, Spring 1973

Opinions	Size of Company			Total	
	Large	Medium	Small		
	Pct.	*Pct.*	*Pct.*	*No.*	*Pct.*
Total respondents	100	100	100	269	100
Respondents who gave opinions	72	80	83	214	80
Respondents who gave opinions	100	100	100	214	100
Benefits for consumer	24	18	16	39	18
Benefits for the firm	17	32	24	54	25
Qualified approval[1]	22	15	16	36	17
Suggestions for a workable system	10	0	4	8	4
Technical or cost problems involved	12	9	21	33	15
Not a useful or needed service	12	15	15	31	15
None	3	11	4	13	6

[1] For example, the respondent has indicated approval for certain products or if temperature controls are available, or says it is beneficial when understood.

and are entitled to date information. However, about the same share of respondents gave open dating a qualified endorsement; that is, they said it was a good idea for some products, or that it could be of value if properly understood by the consumer, or if accompanied by proper temperature control.

Fifteen percent said open dating really wasn't needed, and about the same number listed problems like selective buying by shoppers, confusion due to the lack of a uniform system, technical problems, costs of implementation, and the need for consumer education.

Small processors seemed to see the fewest benefits for the consumer and two-thirds of all the comments on problems with open dating came from small companies.

About half the processors who offered comments used only pull dates on their products. This group of respondents saw fewer benefits and more problems with open dating than the group as a whole. Processors who used only pack dates also mentioned problems or lack of need for open dating, and only 23 percent listed benefits for the firm or the consumer. Generally, benefits for the firm were the most frequent comments regardless of the number of date types or categories open dated, or how the information was presented.

Processors of refrigerated foods mentioned benefits for the firm, as well as problems, somewhat more often than the group as a whole. About one-third of the processors who froze foods commented on benefits for the consumer. Among those who offered baked products, about 40 percent mentioned benefits for the firm and the consumer, while one-fourth said they thought open dating was not needed.

PRODUCT DETAIL

Fluid dairy products, which were the products most often open-dated, nearly always carried pull dates, but a little less than 10 percent had explanations of the date. Proper storage conditions, particularly temperature, are important to the quality of dairy products, yet only 20 percent of the respondents said they provided storage instructions on the label.

Cheese products were mostly likely to be pull-dated in ink on the bottom of the package. Eight percent of the dates were said to be accompanied by explanatory words while 14 percent had storage instructions. Two-fifths of the dates were presented alpha-numerically, 60 percent numerically, both usually in the month-day form.

For nonfluid dairy products, pull dates were again the most frequent form of dating. Storage instructions were reportedly provided for about 20 percent of the products described, while about a tenth had explanations.

Responses describing date labeling of bacon, luncheon meats, and franks showed some notable differences from the consistent pattern of information for other products. First of all, 90 percent of the products reportedly always had storage instructions - a plus for proper handling of the product. But the types of dates used were divided almost equally among the four types, with pack and quality assurance dates having a slight edge over pull and expiration dates. Explanations were not reported for any of the products described.

Baked goods were the only ones which reported use of the alpha form—the day of the week—for presenting the date. About one-third of the groups used this form, while half were shown in the numerical form. Pull dates were reported for 9 out of 10; over half were shown on a tag or twist tie, and two-thirds were in ink. Storage instructions were reportedly provided for about 37 percent.

Refrigerated products other than dairy items usually had pull dates. Thirty-three products in the frozen dessert category were described. Almost two-thirds of these had a pack date, usually numerical.

Future Plans

Fifteen percent of the firms who responded to the survey planned to start an open dating program or change an existing one within 12 months after the survey. One hundred fifty-four products were involved in the changes. Only one type of date and one method of presentation were planned for most products reported. Explanatory words were planned to accompany the date information on only 16 percent of the products, but this would be a larger share than under existing programs.

The same product categories that were important in current open dating programs were mentioned frequently under future plans. Frozen desserts and baked goods accounted for a little larger share of the products reported in future plans than in the current programs.

Pull dates were planned for a little over two-thirds of the products described. Ink was the method mentioned most often, while cut or cut and inked were reported less frequently under future plans than in current programs.

The share of products that would have storage instructions was slightly higher in future plans than in current programs.

Specific detail for products seemed to follow the same patterns in future programs as they did in

current ones. It is interesting to note that for the future open dating of bacon, luncheon meat and franks respondents seemed to favor use of the pull or the quality assurance rather than the pack or expiration dates, but there was still no indication that words of explanation would be included.

IMPLICATIONS

Dairy products and meat, poultry, and fish products were the most frequently open dated, according to processors who responded to the survey. Products in these categories generally have limited shelf life and are particularly dependent on proper handling and storage (time and temperature) to maintain their quality and acceptability. These are also the products mentioned frequently by consumers who were interviewed about the freshness of the foods they buy.

The extent of open dating on these products is encouraging for the shopper who wants date information to assist in a buying decision. But two problems remain for the shopper who wishes to use the information. As we have seen, the same type of date was not used on all products or even products in the same category; in fact, the same date types were not used on all products of the same firm. But the crucial issue is that there was usually no explanation of the date on the label. Confusion, then, would be difficult to avoid.

When shoppers see a past date on a product, they may make one of two assumptions: 1) The date is the pack date; or 2) the date relates to the life of the product and has now passed its peak. With the first assumption, they may purchase the product, but lacking the technical expertise to judge the life of the product they have not received any usable information. In the second case, they would likely reject a perfectly acceptable product. When a pull date is used and products are properly rotated, the date the shoppers see will be in the future, but they may, not surprisingly, assume that it indicates the end of the product's useful life. "Pull date" and "sell by" are, after all, concepts familiar to the retailer but not particularly relevant to consumer buying decisions.

We also noted above that storage instructions were not given frequently except on products in the bacon, luncheon meats, and franks group. Both advocates and opponents of open date labeling have stressed the importance of proper handling to product quality regardless of the date on the package. Yet instructions for storing the product at home were reportedly provided for only 3 out of 10 of the products described. Time and temperature are both important to product quality, and a date alone does not provide complete information for the consumer. Date explanations and home storage instructions seem particularly important when we note that 29 percent of the respondents in the 1971 telephone survey said that in the previous 2 weeks they had thrown away food (other than leftovers) simply because they thought they had it too long.[4]

The 1974 APHIS regulation on date labeling has solved the problem of identification by requiring an explanation if a calendar date is used.[5] But, of course, this regulation does not require open dates and it applies only to meat and poultry products covered by the Federal Acts, which represent 25-30 percent of the food sold in grocery stores. In addition, the APHIS regulation does not cover storage instructions, which are critically important to make open dating useful to consumers.

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[4]Food Dating, op. cit.

[5]The Federal Register, op. cit.

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BABY BEEF PROMOTIONS GROW

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ABSTRACT: Promotions of baby beef increased from 1974 to 1975. Southern firms advertised baby light beef more frequently than firms in the Eastern, North Central, and Western regions. Wide price differentials measured in cents per pound and in percent between advertised light beef prices and BLS reported retail prices of Choice beef were observed.

KEY WORDS: Baby beef, light beef, calf, promotions, advertising, retail beef prices.

A set of unusual conditions combined to create marketing problems for U.S. beef producers during the latter half of 1974. The summer drought and an unexpected short crop of feed grains raised cattle production costs significantly while cattle prices declined. Caught in a severe cost-price squeeze, beef feeders sharply curtailed placements of cattle in feedlots for finishing on large quantities of grain to yield high grade beef. The sale of the cyclically large inventory of lighter weight cattle coming off grass as leaner beef prompted retailers to promote baby beef at lower prices for consumers. Young light beef was generally available in the South and Southwest until the late 1960's when calf slaughter declined. In 1964, 31 percent of the beef handled by Texas retailers was calf or "baby beef."[1]

Availability of baby or calf beef and other lean beef increased further during 1975. Calf slaughter was up over 70 percent from 1974. More nonfed and light fed steers and heifers were slaughtered. As a result, the average dressed weight of cattle dropped to the lowest level in 10 years. The large supply of the young, lean, grass-fed beef led to wide price differentials between feed and nonfed cattle.[2]

A study of promotional advertisements during 1974 examined the effect of these changes at the retail level. The study concluded that baby beef promotions were concentrated in the South and Southwest. Advertised prices of baby beef ran from 10 to 40 cents per pound lower than for finished beef.[3]

The present report is a continuation of that study and also examines weekly promotional activities of food retailers in 50 major metropolitan areas. Findings tended to parallel those in the previous study.

Although there is no official definition for "baby beef," it is generally beef from young cattle that have been raised mainly on milk and grass. Since young cattle do not have the marbling of mature beef fed large quantities of grain, baby beef has a slightly different flavor and texture than the beef from heavier, more mature cattle. Beef described as "young, lean," "light," "calf," "selected baby," and "selected young" were considered baby beef for this analysis. Other names and brands used in advertisements identified heavier beef.

Table 10 indicates the number and percent of retail food firms advertising baby beef. The firm is counted once for each city in each region in which it advertised. Table 11 presents the number of retail food firms advertising baby beef. Each firm is counted once for each region in which it advertised.

[1]Dietrich, Raymond A., *Price Information and Meat Marketing in Texas and Oklahoma*, AER 115, 19 pp.

[2]Excerpts from *Livestock and Meat Situation*, LMS-206, December 1975.

[3]"Baby Beef Reappears," Christine J. Hager, *National Food Situation*, NFS. 151, February 1975.

Table 10--Distribution of number of retailers advertising "baby" or "calf" beef by week, and region, November 1974-December 1975

Week and month	East (103 retailers)		South (100 retailers)		N. Central (87 retailers)		West (56 retailers)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Nov. 3-9			11	11.0			1	1.8
10-14			13	13.0				
15-23			6	6.0				
24-30			6	6.0				
Dec. 1-4			8	8.0	2	2.3		
8-14	2	1.9	5	5.0	1	1.2		
15-21			5	5.0				
22-28			5	5.0				
Dec. 29-Jan. 4			8	8.0				
Jan. 5-11			7	7.0	1	1.2		
12-18			9	9.0				
19-25			18	18.0	2	2.3		
Jan. 26-Feb. 1	1	1.0	18	18.0	2	2.3		
Feb. 2-8			9	9.0			1	1.8
9-15			12	12.0	3	3.5		
16-22			7	7.0	3	3.5		
Feb. 23-Mar. 1			11	11.0	1	1.2	2	3.6
Mar. 2-8			12	12.0	1	1.2		
9-15			13	13.0	2	2.3	1	1.8
16-22			11	11.0	2	2.3		
23-29			8	8.0	1	1.2		
Mar. 30-Apr. 5			12	12.0	2	2.3		
Apr. 6-12			11	11.0	1	1.2		
13-19			11	11.0	2	2.3	2	3.6
20-26			15	15.0	2	2.3		
Apr. 27-May 3			11	11.0	2	2.3		
May 4-10			14	14.0	3	3.5	1	1.8
11-17			17	17.0	3	3.5	2	3.6
18-24			14	14.0	2	2.3	4	7.1
25-31			15	15.0	3	3.5		
June 1-7			21	21.0	3	3.5	1	1.8
8-14			18	18.0	2	2.3	1	1.8
15-21			19	19.0	2	2.3	2	3.6
22-28			19	19.0	1	1.2	5	8.9
June 29-July 5			15	15.0	3	3.5	2	3.6
July 6-12			24	24.0	4	4.6	2	3.6
13-19			24	24.0	4	4.6	4	7.1
20-26			22	22.0	4	4.6	3	5.4
July 27-Aug. 2			22	22.0	3	3.5	4	7.1
Aug. 3-9	1	1.0	17	17.0	2	2.3	10	17.7
10-16	1	1.0	21	21.0	2	2.3	3	5.4
17-23	2	1.9	19	19.0	1	1.2	4	7.1
24-30			13	13.0	2	2.3	5	8.9
Sept. 1-6	3	2.9	19	19.0	2	2.3	2	3.6
7-13	3	2.9	23	23.0	4	4.6	3	5.4
14-20	2	1.9	22	22.0	4	4.6	1	1.8
21-27			20	20.0	3	3.5	2	3.6
Sept. 28-Oct. 4	2	1.9	33	33.0	2	2.3	1	1.8
Oct. 5-11	2	1.9	27	27.0	2	2.3	1	1.8
12-18	2	1.9	22	22.0	2	2.3	1	1.8
19-25	1	1.0	22	22.0	3	3.5	1	1.8
Oct. 26-Nov. 1	2	1.9	17	17.0	6	6.9	2	3.6
Nov. 2-8	1	1.0	20	20.0	4	4.6		
9-15	1	1.0	22	22.0	1	1.2	1	1.8
16-22	2	1.9	13	13.0	2	2.3		
23-29 1/	2	1.9	9	9.0	2	2.3		
Nov. 30-Dec. 6	3	2.9	16	16.0	4	4.6	1	1.8
Dec. 7-13	3	2.9	18	18.0	4	4.6	1	1.8
14-20	2	1.9	6	6.0	3	3.5		
21-27 2/			8	8.0	4	4.6		

1/ Thanksgiving.
2/ Christmas.

Table 11--Distribution of number of retailers advertising baby beef each month, by region

Month and year	East (57 retailers)		South (63 retailers)		N. Central (61 retailers)		West (34 retailers)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
November 1974	--	--	14	22.2	--	--	1	2.9
December 1974	1	1.8	8	12.7	--	--	2	5.9
January 1975	1	1.8	18	28.6	5	8.2	--	--
February 1975	--	--	12	19.1	4	6.6	4	11.8
March 1975	--	--	13	20.6	2	3.3	2	5.9
April 1975	1	1.8	16	25.4	4	6.6	2	5.9
May 1975	2	3.5	16	25.4	6	9.8	5	14.8
June 1975	1	1.8	22	34.9	3	4.9	4	11.8
July 1975	1	1.8	23	36.5	5	8.2	6	17.7
August 1975	3	5.3	20	31.8	2	3.3	5	14.7
September 1975	4	7.0	22	34.9	4	6.6	4	11.8
October 1975	4	7.0	23	36.5	4	6.6	3	8.8
November 1975	5	8.8	19	30.2	5	8.2	2	5.9
December 1975	5	8.8	15	23.8	4	6.6	2	5.9

Comparison of the tables indicates similar results. More firms advertised baby or calf beef in the South than in any other region. Southern consumers are more accustomed to light beef than those in other areas and, thus, more receptive. Of the 100 firms advertising in at least one of the 15 southern cities, 6 to 33 promoted the lighter-weight beef during any given week. In the densely populated East, baby beef was promoted the least with only one to three percent of the 103 firms advertising on a sporadic basis. Promotion was on a regular basis in the North Central region but by less than 5 percent of the 87 firms. In the West, promotion was irregular and the number of firms involved varied considerably from week to week.

Observing the promotional activity across cities (table 11) indicates the same regional trend. Eight to 23 of the 63 Southern firms advertised light beef. Less than seven of the firms in other regions advertised baby beef.

Promotional activity peaked from June through October, falling sharply in November and December with the heavier movement of cattle on feed. The primary explanation for the decline was the increase in promotion of turkeys and hams for the holiday season.

Prices also appeared to follow a seasonal pattern. Both Choice and light-weight beef prices for all cuts were at their low during the late winter months and hit seasonal highs during the summer months.

The differences between advertised prices of baby or light beef and BLS reported retail prices of Choice heavy beef fluctuated with the cut and month of year. For example, chuck roast price differences in two southern markets, Dallas and Houston, varied considerably from month-to-month in both absolute and percentage terms (table 12). In Dallas, the price difference ranged from almost 19 to 35 percent of the BLS reported chuck roast price. In Houston, the difference was even greater, ranging from 5 to 45 cents a pound or 4 to 43 percent of the reported BLS price.

Price differences for higher priced cuts of baby and heavy beef were more uniform during the 11 month period in the two markets (table 13). In Dallas, baby beef sirloin steak prices were 54.4 to 89.4 cents a pound less or 32.7 to 41 percent less than the BLS reported price for Choice steak. The price difference in Houston was greater, 49.7 to 104.4 cents less for the baby beef sirloin steak than for Choice sirloin. This was 31.8 to 47.8 percent less than the BLS reported price for Choice sirloin steak.

Therefore, it appears that the price differential (measured in cents and percent) between baby beef and Choice beef was wider for higher priced cuts such as sirloin steak than for lower-priced items such as chuck roast.

The price difference between baby beef and Choice heavy beef cuts is expected to continue through 1976. However, the magnitude of the price differential in 1976 depends heavily upon feed prices, the supply of grain fed cattle, and calf slaughter and in this stage of the beef cycle it will likely be substantially smaller than in 1975.

Lower calving rates in the latter part of 1975 plus predicted lower prices for feed grains indicate reductions in cattle inventory and calf slaughter for 1976. Price differentials between fed and nonfed cattle are expected to fall as feed prices are lowered. The reduced calf crop coupled with lower price differentials should be reflected in decreased promotional activity of baby beef on the part of the retailer. In addition, changes in the USDA beef grading system might further close the gap between fed and nonfed cattle prices. Overall, the prospect for 1976 is for fewer promotions of young, light beef and narrower price differentials between light and heavy beef.[4]

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[4] *Livestock and Meat Situation*, LMS 206, December 1975, pp. 11-15.

Table 12--Distribution of prices, price differences, and percent differences between Choice and baby beef for chuck roast by month, December 1974-October 1975 for Dallas and Houston

Month and year	U.S. average price	Dallas				Houston			
		Average price 1/	Average price 2/	Differences		Average price 1/	Average price 2/	Differences	
	Choice	Choice	Baby beef	Cents	Percent of BLS price	Choice	Baby beef	Cents	Percent of BLS price
December 1974	98.2	86.3	68.0	18.3	21.2	102.2	64.0	38.2	37.4
January 1975	91.5	78.5	61.9	16.6	21.2	94.0	76.0	18.0	19.2
February 1975	92.1	80.4	61.7	18.7	23.3	79.0	75.0	4.0	5.1
March 1975	90.6	80.3	65.3	15.0	18.7	79.9	68.1	11.8	14.8
April 1975	90.9	86.6	65.3	21.3	24.6	78.3	66.6	12.7	16.2
May 1975	100.7	94.8	62.2	32.6	34.4	85.8	64.5	21.3	24.8
June 1975	107.6	103.2	75.4	27.8	26.9	92.2	81.8	10.4	11.3
July 1975	116.8	113.9	82.0	31.9	28.0	100.3	79.7	20.6	20.5
August 1975	112.5	104.7	69.0	35.7	34.1	109.0	66.5	42.5	39.0
September 1975	107.7	97.3	78.7	18.6	19.1	92.3	63.4	28.9	31.3
October 1975	108.2	100.6	72.3	28.3	28.1	104.1	59.0	45.1	43.3

1/ BLS reported price.
2/ This is an average of the advertised prices of retailers during the month weighted by the number of stores operated by the retailer in the city.

Table 13--Distribution of prices, price differences, and percent differences between Choice and baby beef for sirloin steak by month, December 1974-October 1975 for Dallas and Houston

Month and year	U.S. average price	Dallas				Houston			
		Average price 1/	Average price 2/	Differences		Average price 1/	Average price 2/	Differences	
	Choice	Choice	Baby beef	Cents	Percent of BLS price	Choice	Baby beef	Cents	Percent of BLS price
December 1974	173.8	164.1	98.0	66.1	40.3	163.8	93.2	70.6	43.1
January 1975	175.0	166.3	98.1	68.2	41.0	164.8	97.5	67.3	40.8
February 1975	172.7	165.3	110.9	54.4	32.9	153.5	95.0	58.5	38.1
March 1975	167.9	164.0	102.4	61.6	37.6	154.6	91.9	62.7	40.6
April 1975	173.3	171.3	109.0	62.3	36.4	156.4	106.7	49.7	31.8
May 1975	191.4	193.1	115.8	77.3	40.0	180.5	101.2	79.3	43.9
June 1975	211.9	222.1	141.7	80.4	36.2	194.2	116.7	77.5	39.9
July 1975	226.7	238.1	150.1	88.0	37.0	198.6	111.7	86.9	43.8
August 1975	221.3	230.7	141.3	89.4	38.8	201.0	106.9	94.1	46.8
September 1975	216.1	209.5	141.1	68.4	32.7	190.8	106.5	84.3	44.2
October 1975	216.0	218.3	139.2	79.1	36.2	208.1	103.7	104.4	47.8

1/ BLS reported price.
2/ This is an average of the advertised prices of retailers during the month weighted by the number of stores operated by the retailers in the city.

ESTIMATED SALE AND IMPACT OF SOY-BEEF BLENDS IN GROCERY STORES

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ABSTRACT: A sample of retail store sales showed soy-beef blends averaged about 19 cents per pound less than regular ground beef during 1973-74 and that consumers purchased considerable quantities at these differentials. Peak weekly sales of the soy-beef blends were more than 30 percent of all ground beef sold in the sample stores but by March 1974 had declined to less than 21 percent. Additional data indicate weekly sales of soy-beef blends had declined to less than 10 percent of all ground beef sales by November 1975. The decline in soy-beef blend sales as the price of beef decreased suggests that consumer demand for the product may be cyclic. Soy products do not pose a threat to the beef industry but provide a means of stretching available meat in periods of restricted supply.

KEY WORDS: Meat substitutes, soy-beef blends, price relationships, elasticities.

A new soy-beef product was introduced for the first time to consumers in March 1973 as a lower cost alternative to ground beef which was rapidly increasing in price. After the initial introduction, the number of supermarkets handling the product increased rapidly to an estimated 30-40 percent of all supermarkets in early 1974.

Frozen meat patties containing soy at low levels have been available in food stores for some time and institutions have used patties containing soy. However, the soy-beef blends considered here were handled and displayed in the meat counter the same as ground beef, marking the first time products of this type have been available to consumers on a large scale.

Each company devised its own fanciful name for the product. Many stores introduced the product with extensive media advertising as well as point of sales materials. The advertising stressed lower cost compared to all beef products, less shrinkage in cooking, and ways the blend product could be used as a substitute for ground beef.

Generally, the blend was 75 percent ground beef and 25 percent hydrated textured soy flour or concentrate. In some instances, textured soy flour, concentrate, and spun isolate were combined for the soy portion of the blend. The hydrated soy products contained about the same percent protein as the ground beef.

Firms supplying data for this study mixed the blend in a coarse grind at central facilities and then shipped the product to individual stores for fine grinding and consumer packing.

This report covers market penetration of the blends relative to ground beef, trends in blend market shares, the price elasticity for the blend, and the cross elasticities between the blend and regular ground lean beef. The impact of blends sale on the demand for soybeans and beef is estimated.

MARKET PENETRATION OF SOY-BEEF BLENDS

Data analyzed in this report are from three cooperating group chains with approximately 1,500 stores operating in 21 major markets. Specificially, the retail price and quantity shipped to each market were obtained each week for the soy-ground beef blend, regular ground, and lean ground beef starting with the week ending May 5, 1973, and continuing for 46 weeks. For some markets, lean ground beef was the total of several store designated types of lean ground but all rated above regular ground beef. In addition, cooperating chains furnished the total quantity of all beef moving through the markets. This sample represented sales of more than 111 million pounds of ground beef, including about 26 million pounds of the soy-beef blend or 24 percent of total ground beef sales for the stores during this period.

Market Shares

Market shares for the blend, regular, and lean ground beef as a percent of all ground beef are shown by weeks in Table 14. Week 1 of the first month was not the initial sales period for any of the chains in the study although for some market divisions this was the first sales week. The blend captured nearly 31 percent of the ground beef share the first week, decreased to 22 percent for the 10th week, then increased to 34 percent the 15th week which was the second week in August, 1973. This increase in the blend's market share concided with beef being withheld from the market in July and August, probably an effect of the ceiling prices imposed on red meats. This undoubtedly created an abnormal supply situation and disrupted regular market forces. From the 20th week when total beef supplies approached levels in the earlier time periods, quantities of regular and lean ground beef returned to their former levels, decreased slightly and then increased during the latter weeks.

The blend's market share declined to about 23 percent the middle of September, the 20th week, and remained generally at this level for the remaining weeks. The lower market shares for the blend in November and December probably reflect changes in food purchase during the holidays. The blend's market share for the 46-week period was about 24 percent of all ground beef sold during this period.

Additional data from the three cooperating group chains indicated the blend's market share had decreased to about 18 percent of the total of all ground beef including blends for the month ending the first week of September 1974 even though supplies of the textured protein had been adequate. This decrease in blend's market share from about 22 percent in March 1974 with the decrease in beef prices probably reflects a demand rather than supply shift. All three chains reported satisfaction with the sales but indicated that the blends have been merchandised aggressively and have frequently been featured at reduced prices.

The market share for the soy-beef blends further decreased to around 8-10 percent of total ground beef sales by November 1975. In some markets ground beef was regularly selling for 59 cents per pound with the soy-beef priced from 49-55 cents per pound. In other markets ground beef either sold regularly or was specialed at 69 cents per pound with the blend priced 10 cents per pound less. These low beef prices and the narrow margin between the soy-beef blend and regular ground beef is a major reason why sales of the soy-beef blends have declined to the present low levels. However, these chains still feel the soy-beef blends are viable items and sales will increase when retail beef prices increase.

Retail prices and differentials

The prices in table 14 are weighted prices in all markets and chains. Thus, price variations are masked for some markets. These data show the general levels and differentials in the blend and other product prices over the test period. For the first half of the period, blend prices generally increased while market shares for the blend decreased then increased. During the last half of the observed sales, the short-run fluctuation in price appeared to be correlated with changes in market shares. As the price increased or decreased, there was an opposite change in the blend market share.

The differential between the blend and regular ground decreased from about 18 cents a pound at the beginning weeks to 15 cents at the 12th week, the smallest differential between the blend and regular ground beef. However, this low differential was reached on three other weeks. The largest differential was 25 cents per pound at the 28th week, around the first of November 1973. The average differential between the blends and regular ground beef for the 46-week period was 19 cents per pound.

The actual margins for ground beef and blends cannot be determined as data were not collected on the cost to retailers for ground beef or the soy-beef blends. However, a comparison of the differences in margins under certain assumptions illustrates how margins could change as soy protein is substitued for ground beef.

Under these assumptions and prices, there was little difference in the margins for the beef and the

Table 14--Market shares and price of soy-beef blends, regular ground and lean ground beef, 46 weeks, May 1973 to March 1974

Week No.	Market share ground beef			Weighted price per pound of ground beef				
	Blend	Regular	Lean	Blend price	Differential regular-blend	Regular	Differential lean-blend	Lean
	Percent			Dollars				
1	30.6	32.4	37.0	0.78	0.18	0.96	0.47	1.25
2	30.0	34.4	35.6	.76	.20	.96	.50	1.26
3	29.3	33.7	36.9	.78	.18	.96	.46	1.24
4	28.6	33.7	37.7	.78	.18	.96	.46	1.24
5	25.9	36.2	37.9	.78	.18	.96	.47	1.25
6	26.0	36.6	37.4	.77	.18	.95	.47	1.24
7	24.8	37.7	37.6	.77	.18	.95	.47	1.24
8	23.8	39.6	36.6	.78	.18	.96	.46	1.24
9	22.5	40.6	36.9	.78	.17	.95	.46	1.24
10	22.1	40.1	37.8	.78	.16	.94	.47	1.25
11	24.6	37.4	38.0	.79	.16	.95	.45	1.24
12	26.5	34.6	38.9	.81	.15	.96	.44	1.25
13	23.5	36.5	40.0	.81	.16	.97	.45	1.26
14	28.2	35.9	35.8	.83	.15	.98	.48	1.31
15	34.1	26.6	39.3	.86	.20	1.06	.46	1.32
16	28.9	29.7	41.3	.86	.22	1.08	.46	1.32
17	27.3	29.7	43.1	.86	.20	1.06	.44	1.30
18	27.5	25.7	46.8	.87	.18	1.05	.41	1.28
19	25.4	29.7	44.9	.86	.18	1.04	.41	1.27
20	22.5	36.7	40.8	.87	.21	1.08	.43	1.30
21	23.4	37.6	39.0	.87	.20	1.07	.45	1.32
22	23.0	39.0	38.0	.87	.21	1.08	.49	1.36
23	23.9	36.7	39.4	.87	.20	1.07	.48	1.35
24	23.3	39.4	37.3	.84	.20	1.04	.52	1.36
25	21.1	42.2	36.7	.84	.21	1.05	.51	1.35
26	23.0	38.0	39.0	.82	.18	1.00	.52	1.34
27	19.6	41.8	38.6	.83	.15	.98	.49	1.32
28	25.9	36.0	38.1	.78	.25	1.03	.53	1.31
29	17.6	39.4	43.0	.83	.20	1.03	.46	1.29
30	19.5	41.4	39.0	.83	.15	.98	.47	1.30
31	23.8	38.9	37.3	.79	.23	1.01	.52	1.30
32	20.8	44.3	35.0	.81	.22	1.03	.50	1.31
33	19.2	43.9	36.9	.82	.19	1.01	.50	1.32
34	19.2	38.0	42.8	.80	.22	1.02	.52	1.32
35	16.7	47.4	36.0	.82	.15	.97	.50	1.32
36	20.1	42.8	37.1	.78	.21	.99	.55	1.33
37	21.4	40.6	38.0	.79	.24	1.03	.55	1.34
38	23.0	40.6	36.2	.80	.25	1.03	.54	1.34
39	21.7	42.3	36.0	.82	.18	1.00	.55	1.37
40	20.5	41.8	37.6	.86	.18	1.04	.53	1.39
41	21.4	42.5	36.1	.82	.24	1.06	.54	1.38
42	19.9	44.3	35.8	.87	.20	1.07	.55	1.42
43	20.9	42.2	37.0	.86	.21	1.07	.54	1.40
44	22.4	43.3	34.4	.83	.20	1.03	.57	1.40
45	22.8	41.9	35.3	.81	.21	1.02	.58	1.39
46	20.9	42.9	36.2	.80	.20	1.00	.54	1.34

soy-beef blends. Retailers may have wanted to maintain about the same retail margins for the ground product. In any case, these data illustrate the limits in cost reduction possible when substituting soy protein for 25 percent of the ground beef.

The differential between the blend and lean ground averaged $.49 cents per pound. The pattern for this differential was about the same as that between the blend and regular ground beef up to the 19th week. From the 19th week, the differential between the blend and lean ground was generally upward, increasing to a high of 58 cents on the 45th week.

Retail prices and margins for regular ground beef and soy beef blends, per pound

Item	Regular ground beef	Soy beef blends
Average retail	[1] $1.01	[1] $ .82
Cost to retailer	[2] .80	[3] .63
Retail margin	.21	$ .19

[1] Average of prices reported by three chain stores in the study. [2] Calculated from gross margin for all meat, 20.7 percent, reported in Chain Store Age, July 1974. [3] Cost of soy beef blend based on ¾ pound of beef at $.80 per pound and ¼ pound of soy protein at $.12 per pound hydrated ready to mix with beef which is equivalent to $.36 per pound for the soy protein dry weight.

ADVERTISING OF SOY-BEEF BLENDS

A compilation of stores advertising the soy-beef blends in major newspapers in 47 metropolitan areas was used to determine the rapidity with which the blends became available after the initial introduction. Also, a regression variable was constructed from information on advertising by the three cooperating chains for later use in the regression analyses of the price-quality relationships.

The entry of new firms was greatest in May, June, and July tapering off toward the end of the period checked. No new firms advertised the blend product in January and February of 1974, although the possibility was greater for overlooking firms since only the last week in the month was checked rather than weekly as in the early part of the study period. The number of firms still entering the market several months after its original introduction indicated the strong interest in the product.

Firms advertised at vastly different frequencies. Some advertised only 1 or 2 weeks, while others advertised consecutively for several weeks after the initial introduction and then only at intervals. A number of firms advertised the blend product almost every week checks were made.

The three chain stores providing price and volume data had weekly newspaper advertisements about 90 percent of the time possible, while all other firms advertised about 55 percent of the time. These figures were based on data from April through July 2, 1973.

PRICE QUANTITY RELATIONSHIPS

Regression Analysis

Regression analysis was used in an attempt to determine the interaction between the quantity of soy-beef sold, the blend price, the price and quantity of regular and lean ground beef plus other factors thought to influence the sales of the soy-ground beef blends. The 46 weeks of data for 19 divisions were pooled and the resulting set of observations analyzed.

Regression coefficients, tests of significance for each coefficient, total variability accounted for by the independent variables (R squares) for three equations are shown in table 15. These equations culminate efforts to explain changes in the quantity of ground beef products purchased. Equations 1, uses the total 46 weeks of data but in the other equations, the data were divided into two 23 week periods.

The number of indepedent variables was not the same in the two sets of equations. The seasonal variable was dropped in equations containing only 23 weeks of data because the division of data into halves partially eliminated the effect of a seasonal variable. A variable representing cuts, that is all beef other than ground, was introduced. This variable which had been included in previous equations, was statistically significant in explaining variation in the quantity of blends and ground beef sold.

The correlations for all three equations were relatively low. The limited number of variables, and unequal market size, were factors limiting the variability explained by the regression analysis. Probably a more serious deficiency was lack of information on price of competing products, including roasts or other beef or pork cuts, and no information on purchasers incomes, availability of soy-beef blends in other stores or other characteristics of the different markets. In addition, July and August 1973, was a period of price freezes with

Table 15--Estimates of regression coefficients and R^2's, three regression equations used in analyzing changes in quantities sold of soy-beef blends and other ground beef products 1/

Equation number	Equation 1	Equation 2	Equation 3
Dependent variable	QSBB	QSBB 3/	QSBB 4/
Constant term	21.5425	46.2298	-5.8720
PSBB	-62.0259 2/	-62.5510 2/	-48.9609 2/
PH	35.2167 2/	32.8403 2/	37.3935 2/
PLG	-0.8112	-15.9152	10.0187
S2	8.7394 2/		
S3	7.8690 2/		
S4	-0.8083		
QH+QLG	0.2177 2/	.1861 2/	.1860 2/
Cuts		0.0474 2/	.0097
Multiple "R" Squares	0.34	.36	.32

1/ Where QSBB=quantity of soy-beef blend, PSBB=price of soy-beef blend, PH=price of hamburger, PLG=the price of lean ground beef, S_2, S_3, S_4=second through fourth quarters of 1973, and cuts= all beef sold not ground.

2/ Significant at the .05 probability level.

3/ Based on the first 23 weeks of data.

4/ Based on the last 23 weeks of data.

a diminishing supply of meat and meat products that contributed to the variability of blend and other ground beef sales. Also, quantity shipped was to divisions not individual stores and the prices per pound were average prices for a division and not individual stores. Differences in sales due to price variation could have been masked by this aggregation of data and the quantities shipped may not have been adequate for the entire week, especially if the blends were on sale.

The direction and probably the magnitude of the price-quantity relationships are accurate enough to be useful. Once advertising was removed as a variable, the response of the soy-beef blend to changes in its own price and the price of regular ground was in the direction expected, and in most equations was statistically significant. Changes in the equations to include or exclude variables other than the price variables caused very little change in the absolute values of the coefficients associated with price.

Price Elasticities of Demand

The major reason for the regression analysis was to determine direct and cross elasticities. Price elasticity of demand is a concept relating percent changes in quantities purchased to percent changes in price of the commodity. Cross elasticity is the responsiveness of quantity purchased of one product induced by a given change in the price of another product. Thus cross elasticity is one measure of the competition of one product with another: the greater elasticity value indicates greater substitution between two products. For direct demand elasticity consumers buy less of a product at higher prices indicating an inverse or negative relationship. The cross elasticity could be positive, if the products were substitutes or negative if they were not substitute.

The elasticities are calculated from the relationships expressed by the equations in table 15. They are calculated on the mean price and mean quantity with the quantity of soy-beef blends purchased as the dependent variable. The three equations gave similar elasticities except the cross elasticity of the quantity of blend with respect to the price of lean ground beef had a different sign in equation three. Dividing the time periods had little effect on the elasticity coefficients.

Direct and cross elasticities of demand for soy-beef blends and other beef computed from nine regression equations

Equation number[1]	Dependent variable (quantity)	Elasticity with respect to price of:		
		Soy-beef blends	Hamburger	Lean ground beef
1	Soy-beef blend	-1.83	1.27	-0.04
2	Soy-beef blend	-1.68	1.07	-.67
3	Soy-beef blend	-1.65	1.57	.55

[1] Equations shown in table 15.

The equations show the sale of soy-beef blends highly responsive to its own price, somewhat less responsive to the price of regular ground, and not affected significantly by changes in the price of lean ground beef. The demand for blend was highly elastic as the quantity of soy-beef blend sales increased on the average 1.6 to 1.8 percent for each 1 percent decrease in price. As the price of regular ground increased, more blend was sold with the cross-elasticity ranging from 1.1 to 1.6, indicating the blend was considered a close substitute for regular ground. Coefficients explaining the effect of ground beef price on quantity of blend were not significant, indicating the cross elasticity with respect to the price of lean ground was not significant. Even if they had been significant, the elasticities indicate little substitution between lean ground and the beef blends.

In summary, the price quantity relationships measured by the regression and elasticity coefficients indicate the soy-beef blend is responsive to changes in its price and the price of regular ground beef. Changes in the price of lean ground beef did not significantly affect the quantity of the blend purchased.

EFFECT OF INCOME ON PURCHASES OF SOY-BEEF BLENDS

Two of the cooperating chains supplied information on purchases of soy-beef blends and other ground beef products by stores located in lower income areas in the inner city. In one instance, five inner city stores were matched with similar size stores in the suburbs. In the other example, sales from nine inner city stores were compared with all sales for a division minus the inner city stores. Although the sample was limited, several tentative conclusions can be drawn from these data.

In the five matched stores, market shares for the soy-beef blend were about the same up until the 14th and 15th week, then market shares of the blend in the inner city stores were generally higher than market shares in the surburban stores throughout the remaining 31 weeks. When sales

from nine inner city stores were compared with division sales, blend market shares for the inner city stores were below division sales generally until about the 14th week of sales. Then, blend sales in the inner city fluctuated around the level for total division sales with average market shares about the same.

In one instance these data suggest that after an initial period, consumers in the inner city began to purchase the soy-beef blends at a higher rate relative to other ground beef products than consumers in the surburban stores. This is consistent with other research which indicates that the market share of the soy-beef blend in low income areas is significantly higher than in the medium and high income areas.[2] In the other example, consumers in the inner city increased their purchase of the soy-beef blends to match that of other consumers, although there was no significant difference in their purchases after that.

The lower initial sales among low-income consumers also suggest that an educational program for the blend products might be more fruitful in certain sales divisions than in others or possibly that different forms or approaches in advertising should be used.

[2]Degner, Robert Louis. *A consumer Market Analysis for Textured Vegetable Protein Meat Extender in Ground Beef*, unpublished Ph.D Dissertation, Texas A&M Univ., College Station, Texas.

ESTIMATED SALE AND INPACT OF SOY-BEEF BLENDS

The sample data revealed information valuable to firms introducing soy products and to stores planning price promotions for soy products. The sample data does not reveal all information necessary to estimate total sales of these soy-beef blends. An estimate of the total sales of soy-beef blends for the U.S. was made using the survey data from May 1973 to March 1974, the total quantity of ground beef moving through retail stores, and the percentage of stores selling soy-beef blends. Estimated sales of the blend would have been 175 million pounds. The blend is 25 percent soy so that about 44 million pounds would be rehydrated soy product, or about 15 million pounds dry equivalent since the rehydration rate is 2 parts of water to 1 part of soy product.

Sales of soy-beef blends and beef products, May 1973-March 1974 three grocery chains

Product	Total pounds sold	As percent of ground beef:	As percent of all beef
	(000)	*(Percent)*	*(Percent)*
Soy-beef blend ..	26,353	24	9.7
Regular ground ..	42,311	38	15.6
Lean ground	42,348	38	15.6
Total ground ..	111,012	100	41.0
All beef	270,658	---	100.0

This 15 million pounds of textured dry soy product is probably a minimum estimate. In the sample stores, ground beef accounted for 41 percent of all beef sales and if this proportion held for all stores introducing the blend, then the total quantity of soy product would be much higher. But the 15 million pounds of dry soy product represented about 25 to 27 million pounds of soybeans.

This estimate total blend sales is roughly equivalent to the time July 1, 1973 through June 30, 1974, although based on total consumption figures for 1973.

Consumption of the soy-beef blend was down in 1975. An estimated 70 million pounds of the blend containing 17.5 million pounds of rehydrated soy products were sold.

Importance of Blend Sales to Total Beef Consumption

Total civilian beef consumption was 16.7 billion pounds retail equivalent in 1973, with the total estimated blend sale of 175 million pounds about 1 percent of all beef and about 2 percent of all beef moving through retail stores. Since the blend was only 25 percent soy products, the actual beef replaced would be only one-fourth of these amounts. The 44 million pounds of rehydrated soy product would be 1.8 percent of the ground beef moving through retail stores. Although these percentages are small in comparison to total beef, they represent a remarkable sales performance for new product. Consumer dissatisfaction with beef prices was a major factor in the acceptance of the product.

The first impact of the blend sales may be on imported beef which is used as ground beef. Imports were 1,989 million pounds in 1973 and the 44 million pounds of rehydrated product was about 2.2 of imported beef. Soy-beef blends are established products in grocery stores and their total market share of ground beef may grow slowly. Their success will depend to a great extent on the price of competing ground beef.

Importance of Soy-beef Blend Sales to the Edible Soy Products Industry

Recent data reported by the Food Protein Council showed an increase in the quantity of soy flour going into edible soy products during the period of this study.

An increase in the third quarter of 1973 coincide with the introduction of soy-beef blends. Recent industry estimates indicate much of the increase in edible soy flour in 1973 and 1974 went into the production of an estimated 100 million pounds of textured soy products in 1973. This was up considerably from the estimated 25-30 million pounds produced in 1970 and is probably double the output of textured soy products in 1972. The estimated 15 million pounds of textured product sold in soy-beef blend was a substantial part of the increase and apparently triggered introduction of packaged dry textured soy products at retail. Sales figures are not available for these products but undoubtedly they contributed to the increased demand for soy products in 1973 and 1974. With more plentiful supplies of beef and lower prices since the latter half of 1974, demand for the soy-beef blends has declined. The decline in production of edible soy flour starting in the third quarter of 1974 and continuing into 1975 again coincides with a decrease in soy-beef blend sales although all of the decline in total edible flour production is probably not due to the decline in the soy-beef blend sales.

SUMMARY AND IMPLICATIONS

Sales of the soy-beef blend in 1973 and 1974 showed that in periods of high beef prices consumers would purchase a meat product containing soy protein if there were sufficient differential between the all-meat and the blend product. The soy-beef blend sales were very responsive to changes in the blend price and the price of regular ground beef. The subsequent decline in soy-beef blend sales as beef prices decreased suggests that the sale of soy proteins as meat extenders directly to consumers will be more cyclic than the sale of soy products to institutional markets. With soy generally only 25 percent of the ground product, it becomes more difficult to maintain an absolute margin between the price of ground beef and the soy beef blend as the price of ground beef decreases. The mass consumer market for soy products is likely to be a marginal market, increasing only when beef prices increase.

Producers of soy products demonstrated they can produce an acceptable product for the consumer market and product improvement continues. Acceptance was less rapid at stores in low-income areas, but after a few weeks the blend sold as well or better than at stores in higher income ares.

Extenders from soy proteins do not pose a threat to the meat industry but provide a way of stretching available meat in periods when supplies are restricted. Use of soy-beef blend and other soy products can moderate price increases under short beef supply conditions.

TASTE PERFERENCE FOR HAMBURGER CONTAINING TEXTURED VEGETABLE PROTEIN

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ABSTRACT: Taste tests were conducted under controlled laboratory conditions to determine participants' preferences between a regular hamburger product and three ground beef products which contained textured vegetable protein (tvp). In a test in which participants were not informed that any of the products contained tvp, no difference in preferences resulted. In a test in which participants had prior knowledge of what products contained tvp, the regular hamburger product was significantly preferred over each of the tvp-blended products.

KEY WORDS: Taste test, textured vegetable protein.

The recent period of high hamburger prices provided an opportunity for a new meat substitute to become established in the food market. This product, textured vegetable protein (tvp), was available at a substantially lower unit price than regular hamburger meat. The tvp can be blended with hamburger, resulting in a mix of animal and vegetable products with a substantially lower cost than regular hamburger. Food retailers could offer the blended product at a lower price than regular hamburger, and it was this feature that was expected to establish tvp in the market.

However, the blended hamburger could not be advertised and labeled as a regular grade of hamburger. Consequently, food retailers offering the blended product proceeded to devise a variety of names to describe the product and differentiate it from regular hamburger. This factor certainly aided food purchasers in terms of product identification, but it may have negatively influenced their impression of the blended product compared to the regular grades of hamburger.

A number of factors determine whether a new product will gain acceptance in a market. Two factors considered of importance for blended hamburgers were the consumer preference for the product compared to regular hamburger and the influence of prior knowledge of the product identification on such preference.

Two experiments were conducted to determine how consumers liked the tvp blended product compared to regular hamburger. In the first experiment, knowledge of the product contents was withheld. In the second, each participant was told which sample contained tvp and which sample was regular hamburger.

Four products were used in each of the two experiments. One product designated as A was regular ground chuck purchased at a local supermarket. The other three products designated as B, C, and D consisted of ground chuck blended with tvp, and each was purchased locally at a different supermarket.

Participants in each experiment were employees of the Department of Agriculture. A total of 144 participants divided into two groups of 72 was selected from a group of 400 volunteers. There were 36 men and 36 women in each group, and each group participated in only one experiment.

The experiment was conducted in a sensory evaluation laboratory utilizing standardized procedures. Laboratory conditions permitted the mini-

mization of a number of outside factors that might influence participant evaluation including product color, serving temperature, sample size, time period between servings, and after-taste. Each product was served as a bite-sized meatball after being baked for 10 minutes at 400° F. For the first experiment, participants were told only that they were to taste and evaluate "meat chunks". For the second experiment, participants were told whether a sample contained tvp or not when it was served.

After tasting a sample, participants recorded their rating on a nine-point hedonic scale ranging from "dislike extremely" to "like extremely". A balance design was employed to allow each sample of product type to appear equally often in each serving position.

Preference judgments for the samples were converted to numerical scores by assigning successive integers from one for "dislike extremely" to nine for "like extremely" to each scale category. Analysis of the data from the first experiment indicated that, without prior knowledge of product content, there was no significant difference in preference among the products tasted. However, prior knowledge of product content did produce different results in the second experiment. The ground chuck was significantly preferred over each of the tvp-blended products.

Average preference scores for products

Product	Experiment I	Experiment II
A (gound chuck)	6.04	6.76[1]
B (blend)	6.03	6.11
C (blend)	5.81	5.93
D (blend)	5.58	5.26

[1] Significantly preferred over Products C and D at the .01 probability level, significantly preferred over Product B at the .05 proability level.

The influence of prior knowledge appeared to enhance participants' taste preferences for the traditional regular ground meat. This factor does suggest some problems for processors and commercial users of tvp. Consumers may not regard blended hamburger as a desirable substitute for regular hamburger. Consequently, the acceptance of the blended product and the growth rate of tvp use may not be as rapid as some might expect unless other incentives are provided. Since the blended products generally have a price advantage, it remains to be seen whether this factor will be sufficiently compelling to change consumer perceptions about tvp in hamburger.

TABLES

Table 16---Wholesale food price indexes and Wholesale Price Index, selected periods 1/
(1967=100)

Year and month	Farm products			Processed foods and feeds													
				Meats												Industrial commodities 7/	
	Eggs	Fresh and dried fruits and vegetables 2/	Total 3/	Beef and veal	Pork	Total	Poultry	Fish	Dairy	Processed fruits and vegetables 2/	Vegetable oil end products	Cereal and bakery products	Sugar and confectionary	Beverages 4/	Total 5/	All food 6/	
1960	122.4	99.0	97.2	95.1	86.6	91.8	116.2	81.4	86.1	92.8	88.7	88.1	90.1	92.8	89.5	92.1	95.3	94.9
1969	133.9	109.3	109.1	112.9	110.8	113.3	113.6	118.6	108.2	107.9	101.5	102.6	109.4	106.0	107.3	109.6	108.0	106.5
1970	126.8	111.6	111.0	114.5	111.7	115.0	113.3	125.1	111.2	110.4	111.8	107.6	115.9	112.9	112.0	113.5	110.0	110.4
1971	100.8	120.1	112.9	124.1	99.5	114.1	112.4	137.0	115.4	114.3	121.1	111.4	119.2	115.8	114.3	115.5	114.0	113.9
1972	103.7	127.6	125.0	133.4	122.1	128.5	115.8	159.5	118.6	119.7	121.2	114.7	121.6	118.0	120.8	121.8	117.9	119.1
1973	165.7	168.1	176.3	163.6	160.5	163.4	177.2	190.8	131.1	129.6	143.6	134.4	132.3	121.7	148.1	146.9	125.9	134.7
1974	160.6	192.3	187.7	158.6	162.3	159.6	157.3	204.6	146.4	154.6	224.8	171.2	258.9	140.7	170.9	174.4	153.8	160.1
January	197.8	184.5	202.6	183.5	172.3	177.8	145.7	215.3	145.1	139.3	177.2	166.3	151.8	125.6	162.1	163.9	135.3	146.6
February	186.8	214.5	205.6	175.9	173.8	175.1	176.2	222.6	147.6	140.7	192.8	169.5	167.1	126.0	164.7	170.4	138.2	149.5
March	167.8	210.6	197.0	163.0	154.7	160.1	165.2	211.9	151.2	141.2	206.1	172.3	190.2	129.3	163.0	168.7	142.4	151.4
April	158.7	226.9	186.2	156.1	143.3	151.9	145.9	222.4	154.1	142.8	192.2	167.1	189.8	132.3	159.1	166.9	146.6	152.7
May	126.0	236.8	180.8	155.8	135.2	147.5	150.8	206.8	146.9	145.2	210.8	167.1	215.8	134.5	158.9	167.7	150.5	155.0
June	124.7	204.4	168.6	140.6	125.2	135.7	138.1	198.3	142.9	148.3	210.6	166.0	240.7	138.4	157.4	163.4	153.6	155.7
July	132.0	186.9	180.8	166.1	171.3	165.0	150.6	205.4	141.7	157.7	218.5	168.9	246.7	143.6	167.6	172.6	157.8	161.7
August	149.6	162.6	189.2	172.4	173.9	169.1	150.4	197.9	142.4	162.7	258.4	169.3	270.4	146.2	179.7	176.9	161.6	167.4
September	169.8	163.2	182.7	159.3	169.9	161.3	170.3	196.8	144.8	165.6	253.7	169.7	297.9	147.8	176.8	178.2	162.9	167.2
October	167.8	166.2	187.5	149.6	178.2	160.2	158.5	192.1	146.4	170.0	270.6	176.2	315.3	152.6	183.5	182.0	164.8	170.2
November	164.9	186.9	187.8	140.6	172.9	155.4	172.1	190.6	146.8	171.1	259.7	179.7	419.8	154.2	189.7	192.3	165.8	171.9
December	181.1	163.7	183.7	139.8	176.6	156.0	165.5	194.7	146.7	170.1	246.9	181.9	401.4	158.2	188.2	189.2	166.1	171.5
1975	159.8	183.7	186.7	176.3	214.7	188.7	194.1	218.7	155.8	169.8	211.5	178.0	254.3	162.4	182.6	186.0	171.5	174.9
January	168.7	174.9	179.7	148.2	183.7	161.9	169.7	193.1	148.3	171.2	247.2	182.3	358.2	162.6	186.4	188.4	167.5	171.8
February	162.4	174.6	174.6	142.7	181.8	159.0	170.5	206.5	148.5	170.9	239.5	183.6	347.3	162.2	182.6	185.6	168.4	171.3
March	166.3	163.8	171.1	143.7	180.4	159.0	164.6	203.2	148.6	169.5	231.1	181.9	303.0	162.2	177.3	180.4	168.9	170.4
April	140.0	183.4	177.7	167.7	181.9	171.6	165.9	208.3	148.9	170.8	223.1	179.1	280.1	161.7	179.4	181.9	169.7	172.1
May	145.5	185.1	184.5	189.4	201.7	189.8	175.1	216.8	149.6	171.0	215.5	176.2	239.6	161.0	179.0	182.4	170.3	173.2
June	137.9	206.7	186.2	202.3	206.5	199.3	186.5	217.5	150.5	170.9	206.7	174.4	217.8	160.4	179.7	184.3	170.7	173.7
July	139.7	208.6	193.7	201.0	231.4	208.0	208.9	225.2	153.2	169.4	203.8	176.7	228.4	159.4	184.6	189.8	171.2	175.7
August	156.7	179.6	193.2	186.5	241.0	203.4	195.3	224.9	156.5	168.6	207.9	175.8	243.2	161.6	186.3	189.0	172.2	176.7
September	174.4	182.6	197.1	192.7	250.0	209.3	196.5	229.5	160.8	168.4	197.7	177.0	219.4	162.5	186.1	189.7	173.1	177.7
October	158.4	183.3	197.3	183.7	255.5	209.1	202.6	231.0	165.6	169.3	191.1	177.6	208.3	165.1	186.2	189.1	174.7	178.9
November	175.8	179.0	191.7	174.7	239.0	198.3	195.8	228.1	168.1	169.0	190.4	177.0	207.6	165.1	182.6	186.0	175.4	178.2
December	192.3	190.3	193.8	183.0	223.9	196.0	177.7	240.7	171.3	168.5	184.0	174.6	199.1	165.4	181.0	185.2	176.1	178.7
	Seasonally adjusted 8/																	
1974																		
January	175.4	183.0	200.6	182.0	166.8	176.6	152.5	210.8	144.5	139.4	179.0	---	154.7	---	161.1	163.1	---	---
February	188.9	204.9	200.4	169.0	165.9	168.8	179.0	217.5	147.2	141.3	192.4	---	167.8	---	162.6	169.5	---	---
March	161.8	205.7	193.5	156.9	157.1	158.7	157.2	206.6	149.4	142.3	205.1	---	190.2	---	161.5	166.2	---	---
April	166.0	213.3	187.9	155.2	154.2	154.5	148.7	221.1	153.3	142.9	195.1	---	191.3	---	161.4	167.2	---	---
May	147.5	216.7	180.8	154.0	143.3	150.1	150.0	210.3	147.2	144.9	213.4	---	215.2	---	160.0	168.3	---	---
June	139.8	188.6	164.5	137.0	127.6	135.3	138.0	207.5	144.3	147.7	213.2	---	236.7	---	156.0	163.5	---	---
July	145.9	184.1	180.8	159.5	160.0	157.5	137.1	208.1	142.0	158.0	222.1	---	245.5	---	166.9	171.2	---	---
August	153.3	176.4	186.8	171.1	166.2	168.3	146.3	202.0	144.0	162.4	255.8	---	266.4	---	177.9	175.5	---	---
September	156.1	186.3	184.4	161.0	167.7	160.9	157.3	198.5	145.5	155.9	247.0	---	295.5	---	177.0	178.2	---	---
October	168.5	181.8	193.1	157.9	176.9	164.3	162.6	194.2	146.1	170.3	263.7	---	314.7	---	185.0	185.1	---	---
November	160.6	186.3	194.0	153.9	180.8	164.4	178.7	186.7	146.7	169.5	256.6	---	422.3	---	193.8	195.3	---	---
December	157.2	172.3	186.1	144.8	179.0	160.8	185.2	191.4	146.3	169.6	251.2	---	406.3	---	188.2	189.9	---	---
1975																		
January	149.6	173.5	177.9	146.6	177.3	160.5	178.4	189.3	147.7	171.4	249.7	---	365.1	---	185.3	187.4	---	---
February	164.2	161.4	170.2	137.1	173.9	153.3	174.3	201.9	148.1	171.6	239.0	---	348.7	---	180.3	184.9	---	---
March	160.4	160.0	168.1	138.1	183.1	157.6	156.2	198.0	146.8	170.9	230.0	---	303.0	---	175.7	177.6	---	---
April	146.4	172.4	179.3	166.9	196.0	174.7	171.7	206.9	148.2	171.0	226.5	---	282.4	---	182.0	182.3	---	---
May	170.7	167.5	184.5	187.5	214.3	193.5	174.1	220.3	149.9	170.7	218.1	---	238.9	---	180.3	183.1	---	---
June	154.6	190.4	181.7	197.0	210.9	198.9	186.3	228.2	152.0	170.2	209.2	---	214.2	---	178.1	184.5	---	---
July	154.4	205.5	193.7	193.1	225.6	198.5	189.9	228.4	153.5	169.7	207.1	---	227.3	---	183.9	188.3	---	---
August	160.6	194.8	190.7	185.2	230.2	196.1	189.6	229.7	158.0	168.3	205.8	---	239.6	---	184.5	187.5	---	---
September	160.3	208.5	198.9	194.8	246.8	208.9	181.1	231.6	161.6	168.7	192.5	---	217.7	---	186.3	189.7	---	---
October	159.0	200.5	203.2	194.0	253.5	214.5	207.8	233.3	165.3	169.6	186.3	---	207.9	---	187.7	192.4	---	---
November	171.2	178.5	198.0	191.6	249.7	210.1	203.5	223.2	167.9	167.5	188.1	---	209.1	---	186.5	189.0	---	---
December	166.9	200.3	196.4	189.6	246.8	202.1	199.0	236.4	170.8	168.0	187.2	---	201.5	---	181.0	185.9	---	---

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices and Expenditures, Agricultural Economic Report No. 138, table 106. 2/ Includes potatoes. 3/ In addition to items listed separately, includes grains, livestock, live poultry, plant and animal fibers, milk, hay, hayseeds, oilseeds, and other farm products such as coffee beans, cocoa beans and tobacco. 4/ Includes alcoholic beverages. 5/ Includes animal fats and oils, crude and refined vegetable oils, manufactured animal feed, and miscellaneous processed foods in addition to items listed separately. 6/ All food includes all processed foods (omitting soft drinks, alcoholic beverages and manufactured animal feeds) plus eggs and fresh and dried fruits and vegetables from the farm products group. 7/ Prior to 1967, includes manufactured animal feeds, soft drinks, and alcoholic beverages. 8/ Meats, poultry, and fish and all food are computed by ERS.

Bureau of Labor Statistics.

Table 17--Retail food price indexes and Consumer Price Index, selected periods 1/
(1967=100)

Year and month	Food at home																	Consumer Price Index, less food	Consumer Price Index 5/
	Meats			Poultry	Fish	Eggs	Dairy products 3/	Fats and oils 4/	Fruits and vegetables			Cereal and bakery products	Sugar and sweets	Beverages	Total	Food away from home	All food		
	Beef and veal	Pork	Total 2/						Fresh	Processed	Total								
1960	92.1	81.7	87.2	106.9	85.0	113.2	88.4	---	84.6	92.9	88.3	87.1	90.1	91.5	89.6	81.4	88.0	88.8	88.7
1969	114.5	109.1	111.4	109.0	107.2	126.8	106.7	99.5	111.1	106.5	109.3	103.3	109.1	104.6	108.2	111.6	108.9	110.1	109.8
1970	119.5	115.9	117.6	108.4	118.0	125.6	111.8	105.8	116.3	109.2	113.4	108.9	115.1	117.4	113.7	119.9	114.9	116.7	116.3
1971	124.9	105.0	116.7	109.0	130.2	108.4	115.3	115.4	121.0	116.2	119.1	113.9	119.3	121.6	116.4	126.1	118.4	122.1	121.3
1972	136.6	121.6	129.2	110.4	141.9	107.7	117.1	116.6	128.0	120.5	125.0	114.7	120.9	121.3	121.6	131.1	123.5	125.8	125.3
1973	163.8	161.7	161.1	154.8	162.8	160.2	127.9	126.4	150.8	130.2	142.5	127.7	128.3	130.2	141.4	141.4	141.4	130.7	133.1
1974	168.5	161.0	164.1	146.9	187.7	160.8	151.9	179.4	162.6	170.6	165.8	166.1	195.2	155.6	162.4	159.4	161.7	143.7	147.7
January	168.6	173.5	169.9	157.0	180.4	191.0	146.3	147.9	148.5	151.5	149.7	149.7	140.3	137.3	154.3	151.6	153.7	135.6	139.7
February	181.3	174.0	176.3	154.7	182.6	194.1	149.3	152.5	154.5	158.0	155.9	154.4	149.5	139.1	159.0	152.6	157.6	136.9	141.5
March	178.4	169.0	173.1	152.0	185.2	175.8	151.5	162.2	162.3	162.8	162.5	158.6	162.0	142.0	160.6	153.7	159.1	138.4	143.1
April	170.0	158.2	164.8	147.0	186.9	160.4	153.7	169.8	159.6	168.0	163.0	161.4	169.6	145.7	159.4	155.6	158.6	139.6	143.9
May	165.8	148.8	158.7	138.7	187.1	133.2	154.6	171.0	181.8	171.6	177.7	164.3	175.9	149.3	160.4	157.1	159.7	141.3	145.5
June	163.9	141.2	154.8	135.8	187.1	128.4	153.8	172.2	190.3	172.3	183.1	165.3	184.1	153.8	160.9	158.6	160.3	143.0	146.9
July	161.0	145.9	154.0	136.2	188.2	127.8	151.6	172.3	189.2	172.6	178.7	166.7	195.1	158.1	160.6	160.4	160.5	144.4	148.0
August	169.0	158.8	162.8	140.1	187.4	146.0	150.7	179.6	162.9	176.0	168.2	168.2	203.4	163.8	163.0	161.9	162.8	146.1	149.9
September	172.9	164.8	166.7	148.1	188.6	162.2	151.1	198.5	152.7	178.2	162.9	170.4	212.1	166.5	165.5	163.1	165.0	147.8	151.7
October	166.8	164.0	163.5	147.0	190.4	172.2	151.7	203.7	151.6	178.4	162.4	174.7	226.5	169.2	166.5	164.7	166.1	149.1	153.0
November	163.7	166.8	163.0	150.9	193.6	166.2	152.7	210.2	154.7	178.7	164.3	177.6	245.2	170.2	168.3	166.2	167.8	150.4	154.3
December	160.1	167.1	161.7	154.9	194.8	172.6	155.3	212.6	149.6	178.7	161.3	181.7	279.0	172.7	170.3	167.6	169.7	151.3	155.4
1975	170.0	196.9	177.9	162.4	203.3	157.8	156.6	198.6	166.1	178.3	171.0	184.8	246.2	178.9	175.8	174.3	175.4	157.1	161.2
January	158.5	170.0	161.9	152.8	195.7	172.6	155.2	214.7	153.6	178.3	163.5	185.3	281.0	175.3	171.4	169.0	170.9	151.8	156.1
February	156.6	169.6	160.9	152.0	197.2	172.1	155.6	214.9	159.2	177.9	166.7	187.3	273.9	177.0	172.0	170.5	171.6	153.0	157.2
March	153.3	170.5	159.7	151.8	197.1	153.5	155.4	213.1	159.9	178.7	167.4	189.1	269.5	177.8	171.4	171.3	171.3	153.9	157.8
April	154.6	170.0	160.2	148.9	197.3	158.2	154.8	209.7	160.9	178.2	167.8	188.9	255.7	178.0	171.0	172.2	171.2	154.9	158.6
May	166.4	175.6	167.9	149.8	199.1	144.6	153.6	203.0	164.7	175.4	169.0	187.0	246.0	175.3	171.6	172.8	171.8	155.6	159.3
June	176.6	187.9	177.8	157.7	200.4	137.2	153.3	195.8	179.0	175.0	177.4	185.2	236.8	174.9	174.9	173.1	174.4	156.6	160.6
July	186.4	204.9	188.5	172.8	202.9	144.6	153.4	191.7	198.4	174.7	188.8	184.6	228.9	174.1	179.9	174.2	178.6	157.6	162.3
August	182.5	214.3	190.4	174.3	205.1	151.1	154.3	189.3	180.0	174.8	177.9	182.6	236.0	175.1	179.0	175.3	178.1	158.3	162.8
September	176.7	222.4	190.5	177.2	208.1	163.9	156.3	185.7	161.6	176.1	167.4	181.6	238.6	177.9	178.2	176.5	177.8	159.5	163.6
October	178.3	230.9	194.3	171.6	210.6	159.3	159.4	188.8	156.1	179.6	165.5	181.6	235.0	183.7	179.3	178.0	179.0	160.4	164.6
November	175.3	227.5	192.4	171.1	211.7	160.1	162.8	187.1	158.2	184.3	168.7	181.9	228.0	188.1	180.0	179.2	179.8	161.5	165.6
December	174.7	219.6	189.8	168.5	214.1	176.4	165.5	185.9	162.1	187.0	172.1	182.2	225.7	190.1	180.9	180.0	180.7	162.1	166.3
	Seasonally adjusted																		
1974																			
January	172.0	174.7	172.3	157.9	180.8	173.8	146.2	148.3	154.4	151.7	153.4	150.2	140.7	137.9	155.4	151.8	154.6	135.7	140.0
February	180.8	171.4	175.6	154.9	182.2	182.4	148.6	153.1	157.2	157.8	157.2	154.2	149.9	139.5	158.5	153.1	157.4	137.1	141.6
March	175.4	165.0	169.2	149.2	184.5	171.5	150.7	162.0	161.7	162.5	161.9	158.0	161.5	142.4	159.2	154.2	158.2	138.7	143.1
April	167.7	159.5	163.8	144.3	185.8	163.8	153.1	169.6	156.6	167.3	161.1	160.8	168.3	146.0	158.9	155.9	158.3	139.9	144.0
May	166.1	154.4	160.6	139.5	186.7	145.3	154.1	171.2	174.5	171.6	173.7	163.8	175.0	149.2	160.4	157.3	159.7	141.3	145.5
June	165.1	144.1	156.5	136.9	187.1	146.4	153.8	173.6	175.6	172.6	174.5	165.6	183.5	153.3	160.9	158.8	160.3	142.8	146.8
July	158.0	144.2	152.2	135.8	188.4	140.7	152.2	174.2	166.4	173.5	169.1	167.0	194.9	157.3	159.2	160.4	159.4	144.4	148.0
August	166.0	157.5	161.5	139.7	188.7	150.5	151.6	180.0	157.1	176.0	163.9	168.7	204.0	163.3	162.4	161.6	162.2	146.2	149.7
September	169.8	162.4	164.7	145.1	189.7	154.8	151.9	197.2	161.2	177.3	167.4	170.9	212.7	166.3	165.3	162.9	164.8	147.7	151.5
October	167.8	162.2	163.0	146.6	191.4	165.3	152.5	202.5	162.1	178.2	169.5	174.5	228.1	168.7	167.7	164.2	166.9	148.8	152.8
November	166.9	167.0	164.5	153.7	192.8	165.9	152.9	208.1	162.3	179.1	169.4	177.8	244.7	170.4	169.7	165.7	168.8	150.1	154.3
December	165.7	169.5	165.3	159.7	194.2	161.6	154.7	210.9	160.3	179.1	168.2	182.1	280.4	173.2	171.7	167.3	170.4	151.1	155.5
1975																			
January	161.7	171.2	164.2	153.7	196.1	157.1	155.0	215.3	159.7	178.5	167.5	185.9	281.8	176.0	172.6	169.2	171.9	152.0	156.5
February	156.1	167.1	160.3	152.2	196.8	161.7	154.8	215.8	162.0	177.7	168.0	187.1	274.7	177.5	171.5	171.0	171.4	153.3	157.3
March	150.7	166.5	156.1	149.0	196.3	149.8	154.6	212.9	159.3	178.3	166.7	188.3	268.7	178.3	169.9	171.8	170.3	154.2	157.8
April	152.5	171.4	159.2	146.1	196.1	161.6	154.2	209.5	157.9	177.5	165.8	188.1	253.7	178.4	170.5	172.5	170.9	155.2	158.7
May	166.7	182.2	169.9	150.7	198.7	157.7	153.1	203.2	158.1	175.4	165.2	186.1	244.8	175.1	171.6	173.0	171.8	155.6	159.3
June	177.8	191.7	179.9	159.0	200.4	156.4	153.3	197.4	165.1	175.4	169.1	185.6	236.1	174.4	174.9	173.3	174.4	156.4	160.5
July	182.9	202.5	186.3	172.3	203.1	159.3	154.0	193.8	180.5	175.6	178.6	185.0	228.7	173.2	178.3	174.2	177.4	157.6	162.4
August	179.3	212.6	188.9	173.8	206.5	155.8	155.2	189.7	173.6	174.8	173.4	183.1	236.7	174.6	178.3	175.0	177.4	158.5	163.0
September	173.6	219.1	188.2	173.6	209.4	156.4	157.1	189.1	170.6	175.2	172.0	182.1	238.9	177.7	178.0	176.3	177.6	159.3	163.4
October	179.4	228.4	193.7	171.6	211.7	152.9	160.2	187.7	167.0	179.4	172.8	181.4	236.7	183.2	180.6	177.5	179.9	160.1	164.4
November	178.7	227.7	194.1	174.2	210.9	159.8	163.0	185.2	166.0	184.7	173.9	182.1	227.5	188.3	181.5	178.7	180.9	161.2	165.6
December	180.8	222.7	194.1	173.7	213.5	185.2	164.8	184.4	173.7	187.4	179.5	182.6	226.8	190.7	182.4	179.6	181.4	161.9	166.4

1/For earlier annual data (1957-59 reference base), see Food Consumption, Prices, and Expenditures, Agricultural Economic Report No. 138, July 1968. 2/Beef, veal, lamb and mutton, pork, and processed meat. 3/Includes butter. 4/Excludes butter. 5/Seasonally adjusted series derived by ERS.

Bureau of Labor Statistics.

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NEW PUBLICATIONS

CONSUMER DEMAND FOR MAJOR FOODS IN CANADA, by Zuhair A. Hassan and S. R. Johnson. Request from Mr. A. Trempre, Economics Branch, Carling Building, Room 303, Ottawa, Ontario, Canada, KIA 6H5.

HOMEMAKERS' PREFERENCES, USES AND BUYING PRACTICES FOR SELECTED NONCITRUS FRUIT AND FRUIT PRODUCTS, by Judith L. Jones. A Preliminary Report. Request from the U.S. Department of Agriculture, ERS-NEAD-CEDA, Room 260, 500 12th Street, Washington, D.C. 20250.

A copy of the following publications may be obtained from the ERS Division of Information, Room 0054 South Building, U.S. Department of Agriculture, Washington, D.C. 20250.

MILK PRICING, by Alden C. Manchester, Economic Research Service, U.S. Department of Agriculture, AER No. 315.

A BIBLIOGRAPHY ON THE THEORY AND RESEARCH ON HOUSEHOLD EXPENDITURES, by Hans P. Peterson and Rueben C. Buse, Economic Research Service, U.S. Department of Agriculture, AER No. 293.

FOOD CONSUMPTION PRICES AND EXPENDITURES, by Larry V. Summers, Economic Research Service, U.S. Department of Agriculture, AER No. 138, Supplement for 1974.

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NATIONAL FOOD Situation

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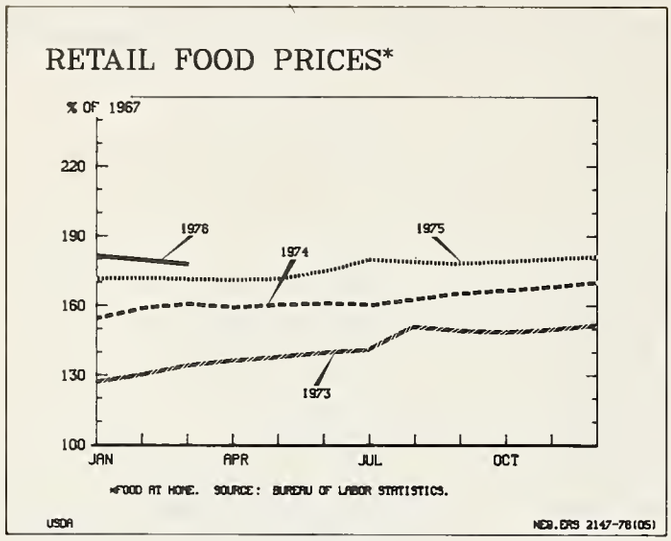

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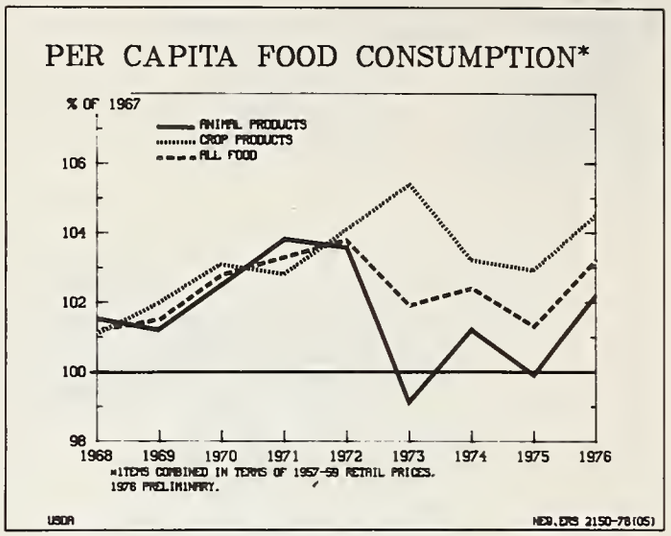

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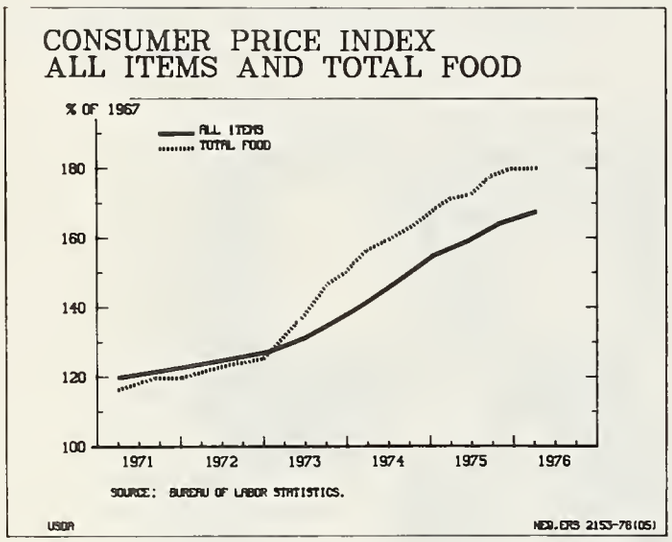

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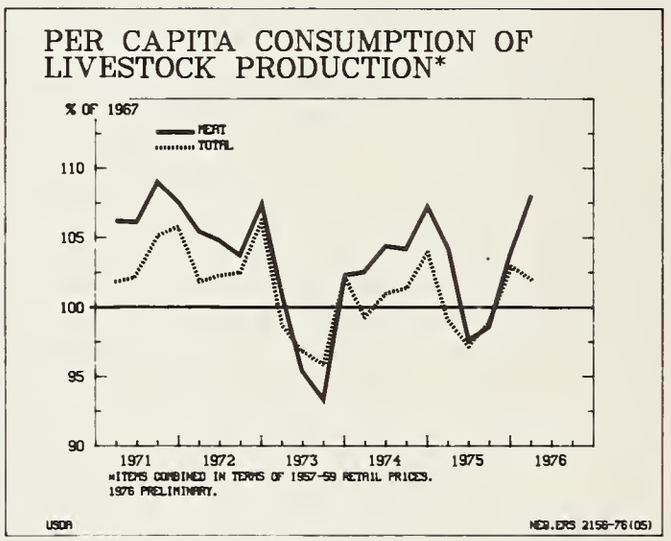

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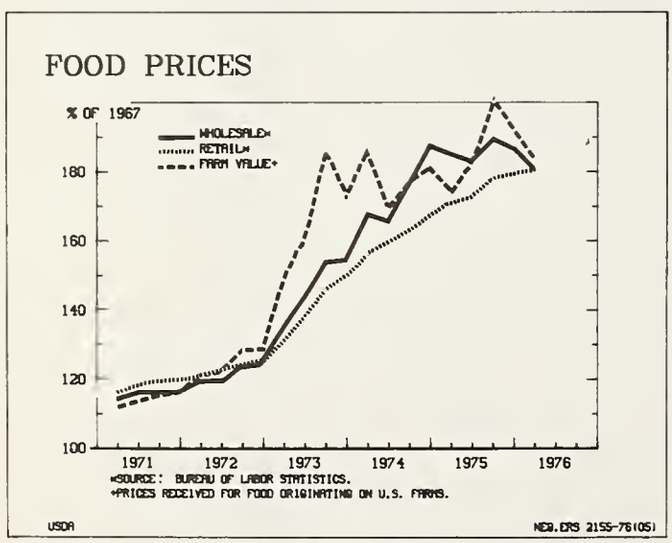

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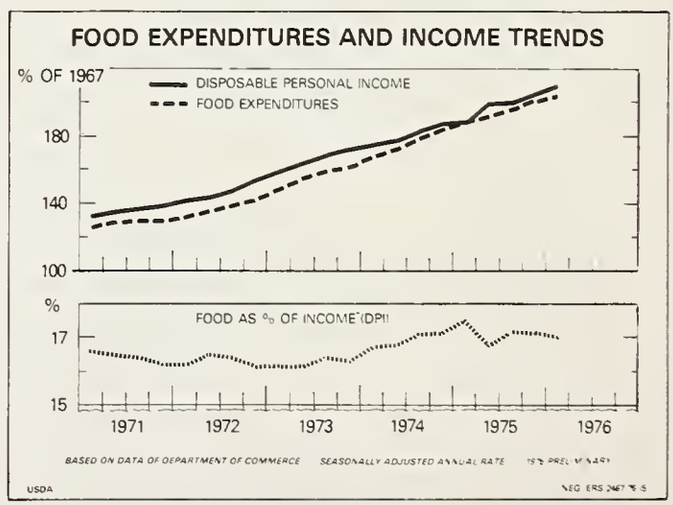

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NATIONAL FOOD SITUATION

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Approved by
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The *National Food Situation* is published in February, May, August, and November.

SUMMARY

Moderate Food Price Rise Likely

Large food supplies along with some narrowing in farm-to-retail price spreads arrested the rise in retail food prices during the early months of 1976. Although larger supplies relative to last year may continue to have a dampening effect, retail food prices are expected to turn up again this spring and may continue to rise through the summer. But sharp increases like those of last summer are not likely and, by fall, there may be some price softening.

In view of the uncertainties ahead, the average increase in retail food prices in 1976 could range from 2 to 5 percent above 1975, depending on crop developments at home and abroad, as well as the strength of the economic recovery. However, under conditions which now appear most likely, retail food prices in 1976 would average 3 to 4 percent above 1975. This compares with the increase of 8½ percent from 1974 to 1975.

Current expectations suggest food prices increasing moderately during the spring and summer with second quarter prices averaging slightly above the first quarter level. A further advance of 1 to 2 percent appears likely for the third quarter. Higher prices for beef and veal likely will account for much of the increase as supplies will be seasonally lower compared to the record-large first quarter output. Seasonal price increases for poultry products and fresh fruits along with higher prices for coffee and fishery items will also contribute to overall food price advances. Expected increases are smaller than the sharp jumps in mid-1975 and the increases from a year earlier are likely to narrow. If the small declines develop as expected later in the year, food prices in the last quarter may average around 2 percent above the last quarter of 1975.

Larger crops and a slower pace of economic activity than now seems likely would tend to slow the rise in food prices this summer with a slightly steeper decline in the fall. Conversely, less favorable weather and stronger demand would result in some added push in retail food prices this summer and preclude the expected seasonal drop in the fall.

Retail food prices during the first 3 months of this year averaged unchanged from the previous 3 months although they were about 5 percent above a year earlier. Following small increases late last year, food prices steadied in January then declined slightly in both February and March. Grocery store food prices in the first quarter averaged about ½ percent below the previous quarter but 4½ percent above a year earlier. Meanwhile, prices for away-from-home eating continued to rise with the first quarter average about 1½ percent above last fall and nearly 7 percent above the first quarter of 1975. This was essentially the same as the average price increase for all nonfood items in the Consumer Price Index.

Much of the recent softening in prices for food at home was associated with livestock products. Declining prices for beef, pork, and poultry more than offset increases for dairy products, eggs, and fishery items leaving the first quarter average for all animal-related foods about 1½ percent below the previous quarter.

With larger supplies, declining prices, and strengthening demand, per capita consumption of livestock-related foods has continued to rebound from depressed year-earlier levels. Based on preliminary estimates, consumption of red meats during January-March 1976 was about 3½ percent above the first quarter of 1975. Poultry consumption was almost a tenth higher, and dairy product consumption was up about 1 percent. Animal fats and oils were down significantly, while egg consumption was about unchanged. Per capita consumption of total livestock-related products was about 3 percent above first quarter 1975.

Personal consumption expenditures for food in first quarter 1976 totaled about $194 billion (seasonally adjusted annual rate), 1.9 percent above fourth quarter 1975 and nearly 9 percent above a year earlier. Spending for food away from home recorded additional gains reflecting rising employment, increasing consumer incomes, and a slight moderation in restaurant price advances. After rising at a record quarterly rate of nearly 7 percent from the third to the fourth quarter last year, away-from-home spending rose 2 percent during the first quarter. Spending for food at home was 2 percent higher, reflecting stronger demand.

Average participation in the Food Stamp Program in the first quarter, up slightly from a year earlier, rose less than usual from the fourth quarter rate. Participation averaged 18.8 million persons, a 1.1 percent increase over the first and fourth quarters of last year. However, after adjusting for the usual seasonal increase, participation dropped nearly 2 percent from the fourth quarter. The balance between public assistance and nonpublic assistance participants remained roughly the same as in previous quarters with nonpublic assistance participants accounting for 54 percent of total enrollment.

The value of bonus stamps, those not paid for by the recipient, increased due to greater participation and the January cost of living adjustment in the value of the coupon allotment. Bonus stamps totaled $1.4 billion during the first quarter—an 8 percent increase from the previous quarter. The average bonus per person was $24.62. The total value of food stamps issued during the first quarter, including those purchased by the recipient, was $2.3 billion, equivalent to about 6 percent of food-at-home expenditures.

The 1976 index of utilization of U.S. farm foods is expected to increase about 2½ percent from 1975. Even though production and imports are expected to be about the same, the total supply is being boosted by larger carryin stocks. Beginning inventories in 1976 rose by more than 16½ percent from 1975 and if production increases as expected, ending inventories may total 8 percent larger than 1975. This additional stock buildup would be equivalent to more than 3 percent of utilization, net of feed and seed. Domestic use, excluding seed and feed, is expected to rise nearly 3 percent in 1976. Export volume is expected to remain essentially unchanged from calendar 1975.

FOOD PRICES AND CONSUMPTION

Grocery Prices Decline During First Quarter

Grocery shoppers have found more specials and lower prices for many food items in recent months, especially at the meat counters, but also lining other store aisles. With generally improving economic conditions, including rising employment and wage rates, consumers have been responding with larger food purchases.

Retail food prices during the first 3 months of this year averaged unchanged from the previous 3 months, although they were about 5 percent above a year earlier. Following small increases late last year, food prices steadied in January, then declined slightly in both February and March. Grocery store food prices in the first quarter averaged about ½ percent below the previous quarter but 4½ percent above a year earlier. Meanwhile, prices for away-from-home eating continued to rise with the first

Table 1--Consumer, wholesale, and farm price indexes, 1975-76
(1967=100)

Item	1975					1976 I	
	I	II	III	IV	Year	Index	Percent change 1975-1976
							Pct.
Retail prices: 1/							
All goods and services (CPI)	157.0	159.5	162.9	165.5	161.2	167.1	6.4
All items less food	152.9	155.7	158.5	161.3	157.1	163.4	6.9
All food	171.3	172.5	178.2	179.9	175.5	179.8	5.0
Food at home	171.6	172.5	179.0	180.1	175.8	179.4	4.5
Food away from home	170.3	172.7	175.0	179.1	174.3	181.9	6.8
Wholesale prices: 1/							
All commodities	171.2	173.0	176.7	178.6	174.9	179.4	4.8
Industrial commodities	168.3	170.2	172.2	175.4	171.5	178.1	5.8
Farm products	175.1	182.8	194.7	194.3	186.7	190.3	8.7
Processed food	186.8	183.5	190.5	187.4	187.1	179.7	-3.8
All food 2/	184.8	182.9	189.5	186.8	186.0	180.4	-2.4
Prices received by farmers: 3/	168	177	189	188	181	186	10.7
Crops	193	190	201	192	194	190	-1.6
Livestock and products	152	168	182	187	172	183	20.4
Market basket of U.S. farm foods: 4/							
Retail cost	168.8	170.0	177.6	177.9	173.6	176.7	4.7
Farm-retail spread	166.1	162.0	163.4	168.7	165.1	172.6	3.9
Farm value	173.1	182.8	200.0	192.6	187.1	183.3	5.9

1/ Department of Labor, Bureau of Labor Statistics.
2/ All food includes all processed foods plus eggs and fresh and dried fruits and vegetables from the farm products group.
3/ Statistical Reporting Service.
4/ Economic Research Service.

quarter average about 1½ percent above last fall and nearly 7 percent above the first quarter of 1975. This was essentially the same as the average price increase for all nonfood items in the Consumer Price Index.

Much of the recent softening in prices for food at home was associated with livestock products. Declining prices for beef, pork, and poultry, more than offset increases for dairy products, eggs, and fishery items, leaving the first quarter average for all animal-related foods about 1½ percent below the previous quarter. However, since prices for these products rose sharply last year, the first quarter average was still over a tenth above a year earlier.

Prices for some crop-related foods also declined in the first quarter. Most of the declines were in the vegetable oil or sugar and sweets categories, although fresh fruit and cereal and bakery products also edged down. More than offsetting, however, were price increases for potatoes and other fresh vegetables, processed fruits and vegetables, and beverages, particularly coffee. Average prices for all crop-related foods during the first quarter were up nearly 1 percent from the previous quarter but about 1½ percent below a year earlier.

Changes in retail food prices, first quarter, 1976

Item	From fourth quarter 1975	From first quarter 1975
	Percent	*Percent*
Meat	-4.7	13.9
Poultry	-5.7	5.6
Fish	2.9	10.9
Dairy products	3.4	8.2
Eggs	6.5	6.0
Fats and oils	-4.8	-16.8
Fruits and vegetables	2.7	4.5
Sugar and sweets	-2.6	-18.6
Cereal and bakery products	-.4	-3.2
Beverages	2.5	8.6
Other preparations	2.2	2.3
Food at home	-.4	4.5
Food away from home	1.6	6.8
All food	0	5.0

Larger supplies resulted in lower farm prices for many food commodities during late 1975 and early this year. However, much of the initial drop in farm prices was not reflected in retail prices. Although farm-retail spreads during the first quarter averaged 2½ percent above the previous quarter, spreads dropped in February and March as earlier declines in farm prices were more fully reflected at the retail level. Compared to the first quarter of 1975, spreads were only about 4 percent higher, in contrast to year-to-year rises of 17 to 19 percent in the first quarters of 1974 and 1975. Spreads for red meats and fresh vegetables averaged sharply higher in the first quarter, while spreads for fats and oils and dairy products were lower. Spreads for most other products were moderately wider.

With larger supplies, declining prices, and strengthening demand, per capita consumption of livestock-related foods has continued to rebound from depressed year-earlier levels. Based on preliminary estimates, consumption of red meats during January-March 1976 was about 3½ percent above the first quarter of 1975. Poultry consumption was almost a tenth higher, and dairy was up about 1 percent. Animal fats and oils were down significantly, while egg consumption was about the same as in the previous quarter. Per capita consumption of total livestock-related products was about 3 percent above first quarter 1975, and after seasonal adjustment was about 3½ percent above the previous quarter.

Per capita food consumption indexes, seasonally adjusted

Period		Total livestock	Meat
		1967=100	
1974	I	101.1	102.3
	II	102.1	106.5
	III	101.1	104.1
	IV	101.3	105.5
1975	I	100.8	104.0
	II	98.3	99.5
	III	98.6	98.6
	IV	100.3	-102.0
1976[1]	I	103.9	107.8

[1] Preliminary.

Wholesale Prices

The first quarter 1976 Wholesale Price Index (WPI) for all foods fell 3½ percent below the fourth quarter of 1975. There were declines of about 10 percent for beef, pork, poultry, and vegetable oils along with smaller declines for dairy, processed fruits and vegetables, sugar, and cereal and bakery and a 36 percent drop for animal fats and oils. Fish prices were up 10 percent, and fresh and dried fruits and vegetables as well as beverages were also higher. Wholesale prices for all farm products fell about 2 percent, while industrial products were 1½ percent higher (table 10).

Compared to the first quarter of 1975, the all-foods wholesale price index was 2½ percent lower, compared to an increase of nearly 5 percent for all commodities.

In April, the WPI for all foods rose 1½ percent, the first increase in 6 months. Most of the increase

was due to an 8-percent advance for beef and a 4-percent rise for fish.

Outlook for Food Supplies and Prices

Domestic food supplies are expected to remain above year-earlier levels throughout 1976 in the absence of severe and widespread weather problems. Total output of livestock food commodities may be up around 4 percent from 1975 with per capita use up over 2 percent—the highest since 1972. Total production of crop food commodities may be only slightly larger than last year's record, but beginning inventories were up sharply. Total domestic food use of crop commodities may be up about 3 percent from 1975 with per capita consumption up about 1½ percent. Thus, per capita use of all food in 1976 may be about 2 percent above last year and only a little below the record high for 1972.

Although larger food supplies relative to last year can be expected to have a dampening effect on food price rises, other forces are likely to exert upward pressure. Rising consumer incomes will continue to strengthen the demand for food, especially for meats and for away-from-home eating. Rising costs associated with marketing and transportation, while more moderate than in recent years, will continue an upward push. Equally important, the supply of beef will be seasonally lower in the spring and summer relative to the record-large first quarter output. Seasonal price increases for poultry and for some fresh produce items and higher prices for coffee and fishery products will also contribute to overall price advances in coming months. But sharp increases like those last summer are not expected and, by fall, larger meat supplies and seasonal price declines for some crop-related foods may bring a small decline in average retail food prices in the closing months of 1976.

For all of 1976, the average increase in retail food prices could range from 2 to 5 percent above 1975, depending on crop developments at home and abroad, as well as the strength of the economic recovery. Under conditions which now appear most likely, food prices may increase moderately during the spring and summer. With the upturn in coming months, second quarter prices may average slightly above the first quarter level. A further advance of 1 to 2 percent appears likely for the third quarter. These expected increases are smaller than the sharp jumps in mid-1975, and increases from a year earlier are likely to narrow. If the small declines develop as expected later in the year, food prices in the last quarter may average around 2 percent above the last quarter of 1975. Under these conditions, food prices for all of 1976 would average 3 to 4 percent above a year earlier.

More favorable weather, higher crop yields, and a slower pace of economic activity than now seems likely would result in a smaller increase in food prices this summer with a slightly larger decline in the fall. Thus, yearend food prices could be slightly below the last quarter of 1975 with the average for 1976 around 2 percent above a year earlier. Conversely, less favorable weather and stronger demand would result in some added push in retail food prices this summer and preclude any seasonal drop in the fall. This would leave fourth quarter food prices well above a year earlier with the annual average for 1976 around 5 percent above last year.

The farm value of U.S. produced foods is expected to increase gradually through the third quarter, followed by a moderate drop in the fourth quarter if supplies increase and prices for meat animals drop as expected. For 1976, the farm value of food may range from little change to as much as 2½ percent below the 1975 average and considerably below the level prevailing during the last half of 1975. Consequently, expected increases in food prices are largely the result of wider farm-retail spreads and higher prices for coffee and fishery products. For the year, the marketing spread may average from 4 to 6 percent above 1975, depending on movements of farm prices and the cost push created by any inflationary forces in the economy.

After increasing sharply in the first quarter of this year, farm-retail spreads are expected to narrow in the second quarter as record-wide spreads for meat animals decline. Spreads for the market basket of farm foods will probably regain their first quarter level in the third quarter this year and continue to widen in the fourth quarter as decreases in retail prices for beef and pork lag expected declines in meat animal prices.

In sharp contrast to last year, it appears that increased farm-to-retail spreads for animal products will contribute more to the increase in spreads for the market basket this year than crop products. Marketing spreads for animal products, which began the year at record levels, are expected to drop sharply in the second quarter as prices for beef cattle climb faster than beef prices in retail food stores. After some catch up in the summer, farm-retail spreads for animal products may continue to widen to near-record levels in the fall, if market prices drop as supplies of meat animals increase. In contrast, spreads for crop products, also entering the year at near-record levels, are expected to continue to increase gradually during 1976, responding to higher prices for goods and services purchased by food marketing firms and the

Table 2--Per capita food consumption indexes, 1967-76 1/
(1967=100)

Selected years	Meat	Poultry	Fish	Eggs	Dairy products 2/	Fats and oils			Fruits 3/		
						Animal 2/	Vegetable	Total	Fresh	Processed	Total
1967	100	100	100	100	100	100	100	100	100	100	100
1968	103	99	102	99	101	103	104	103	98	97	97
1969	102	103	102	98	100	95	110	105	98	102	100
1970	104	108	109	99	99	90	116	107	101	103	102
1971	107	109	105	97	99	90	113	105	98	106	102
1972	105	113	113	95	100	84	122	109	94	105	100
1973	98	107	119	91	99	78	127	110	93	110	102
1974	105	109	112	89	98	76	124	107	98	106	102
1975 6/	101	106	111	86	100	76	122	106	102	112	107

	Vegetables 4/			Potatoes and sweetpotatoes		Cereal products	Sugar and sweeteners	Coffee, tea, and cocoa	All food		
	Fresh	Processed	Total	Fresh	Processed				Animal products	Crops 5/	Total
1967	100	100	100	100	100	100	100	100	100.0	100.0	100.0
1968	99	104	100	101	106	101	103	100	101.5	101.1	101.2
1969	99	104	101	94	118	101	104	97	101.2	102.0	101.5
1970	100	104	101	91	121	98	106	94	102.5	103.1	102.8
1971	99	105	101	87	124	99	106	92	103.8	102.8	103.3
1972	99	108	102	89	123	98	108	98	103.6	104.1	103.8
1973	100	113	104	82	126	98	110	96	99.1	105.4	101.9
1974	100	108	103	75	129	96	106	91	101.7	103.2	102.4
1975 6/	100	108	102	86	130	97	99	87	99.9	103.0	101.3
1976 7/									102.2	104.5	103.3

1/ Civilian consumption only. Quantities of individual foods are combined in terms of 1957-59 retail prices, 2/ Includes butter. 3/ Excludes melons and baby food. 4/ Excludes soup, baby food, dry beans and peas, potatoes, and sweetpotatoes. 5/ Includes melons, dry beans and peas, nuts, soup, and baby food in addition to groups shown separately. 6/ Preliminary. 7/ Projected.

increase in hourly earnings of food marketing employees.

The cost push on marketing spreads, although winding down from that of recent years, is still persistent and is expected to contribute to a gradual escalation of marketing spreads in the second half of the year. Recent and prospective wage agreements in food and allied industries will continue to exert upward pressure on costs of marketing food. The increase in the cost of inputs purchased by food marketing firms slowed in the second half of 1975 and in the first quarter of this year. If this trend continues, cost pressures on marketing spreads will lessen. On the other hand, any rekindling of inflation later this year could boost farm-retail spreads and exert more upward pressure on retail food prices.

Commodity Review: Prices and Consumption

Beef—Beef production during the winter quarter was record large as increasing grain-fed beef supplies overlapped the continued heavy slaughter of cows. While nonfed slaughter has begun to subside, the sharp increase in placements of cattle on feed during the fall and early winter point to continued increases in fed beef production. Movements of cattle into feedlots slowed in late winter as fed cattle prices fell and feeders' losses mounted. Also, marketings of cattle from feedlots during January-March were greater than feeders had earlier planned. Still, the April 1 cattle on feed inventory held well above the depressed year-earlier level. For all of 1976, per capita beef consumption should average 4 pounds above the 89 pounds (retail weight basis) consumed in 1975.

Following a substantial increase in beef production, the retail price for Choice beef moved lower during the first quarter of the year. With fed cattle marketings up about a fourth from the fall quarter and continued heavy cow and nonfed steer and heifer slaughter, first quarter beef production was boosted 3 percent above the record level of the previous quarter. First quarter retail beef prices slipped nearly 4 percent from the October-December average but held about 8½ percent above the average price for the winter quarter of 1975. An expected seasonal reduction in nonfed beef production and a slowdown in the rate of increase in feedlot placements during the winter point to reductions in total beef supplies during the spring and summer from winter levels. Corresponding increases in retail prices are in prospect. Prices may begin to ease during the fall quarter as production picks up again.

Pork—While pork supplies continue restricted, the upturn in the production cycle has been greater than previously expected. Commercial hog slaughter during the first quarter of the year trailed 1975 by only 7 percent as milder weather and increased availability of high protein feeds shortened feeding periods. While this may point to somewhat lighter marketings during the spring quarter, smaller reductions from a year earlier may push total slaughter to within 4 to 5 percent of 1975's first half level. Heavier finish weights could boost pork production to within 3 percent of the 1975 midyear total. For all of 1976, per capita pork consumption may be about 2 to 3 pounds above the depressed level of 51 pounds of 1975.

Retail pork prices during January-March dipped 8 percent below the record level recorded last fall. Prices may decline further in the months ahead as the upturn in production boosts available pork supplies. Still, retail prices will continue above the level of a year ago through spring. Prices should move well below 1975 during the last half of this year when pork production is expected to exceed year-earlier levels by as much as 15 percent.

Eggs—Egg production during the first quarter of 1976 was a little over 1 percent above a year earlier. Layer numbers were down 1 percent but the rate of lay advanced 2 percent. Production is expected to be near a year earlier in the second quarter but gain during the second half of 1976. The egg-type chick hatch indicates there will be around 6 percent more replacement pullets in July-September than a year earlier. Total production in 1976 may be around 1-2 percent above 1975.

Wholesale prices (New York, Grade A large) averaged almost 62 cents a dozen during January-March, a drop of 3 cents from last fall but still 3 cents a dozen above the same months in 1975. Second quarter prices will decline seasonally but likely will remain above 1975. Prices are expected to advance seasonally during the second half of 1976 but increased output may cause prices to average below July-December 1975.

First quarter retail prices for eggs advanced from fourth quarter 1975 and were well above a year earlier. Egg prices will decline seasonally this spring before advancing again in the second half of 1976.

Consumption of shell eggs and egg products totaled 278 eggs (shell equivalent) per person in 1975, a drop of 10 eggs from 1974.

First quarter 1976 preliminary data indicate consumption was about equal to the 70 eggs per person consumed in January-March 1975. Egg production for 1976 is expected to be up from 1975 but increased hatchery use, and continued population increases, may result in per capita egg consumption about matching 1975.

Poultry—Broiler meat output through Federally inspected plants during January-March was 15 percent above the same months of 1975. The number

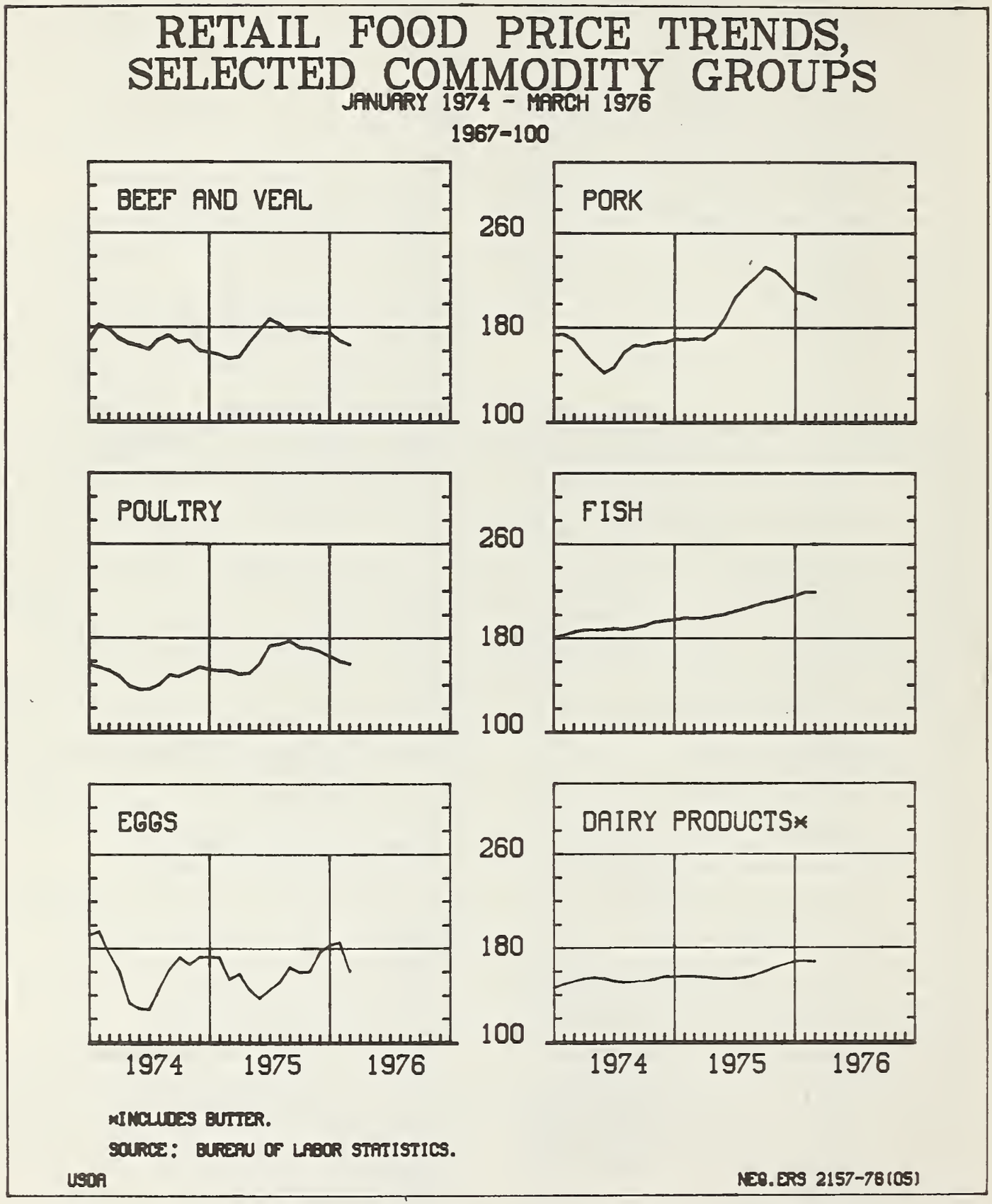
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - MARCH 1976
1967-100
BEEF AND VEAL
PORK
POULTRY
FISH
EGGS
DAIRY PRODUCTS×
260
180
100
1974
1975
1976
×INCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2157-76(05)

Figure 7

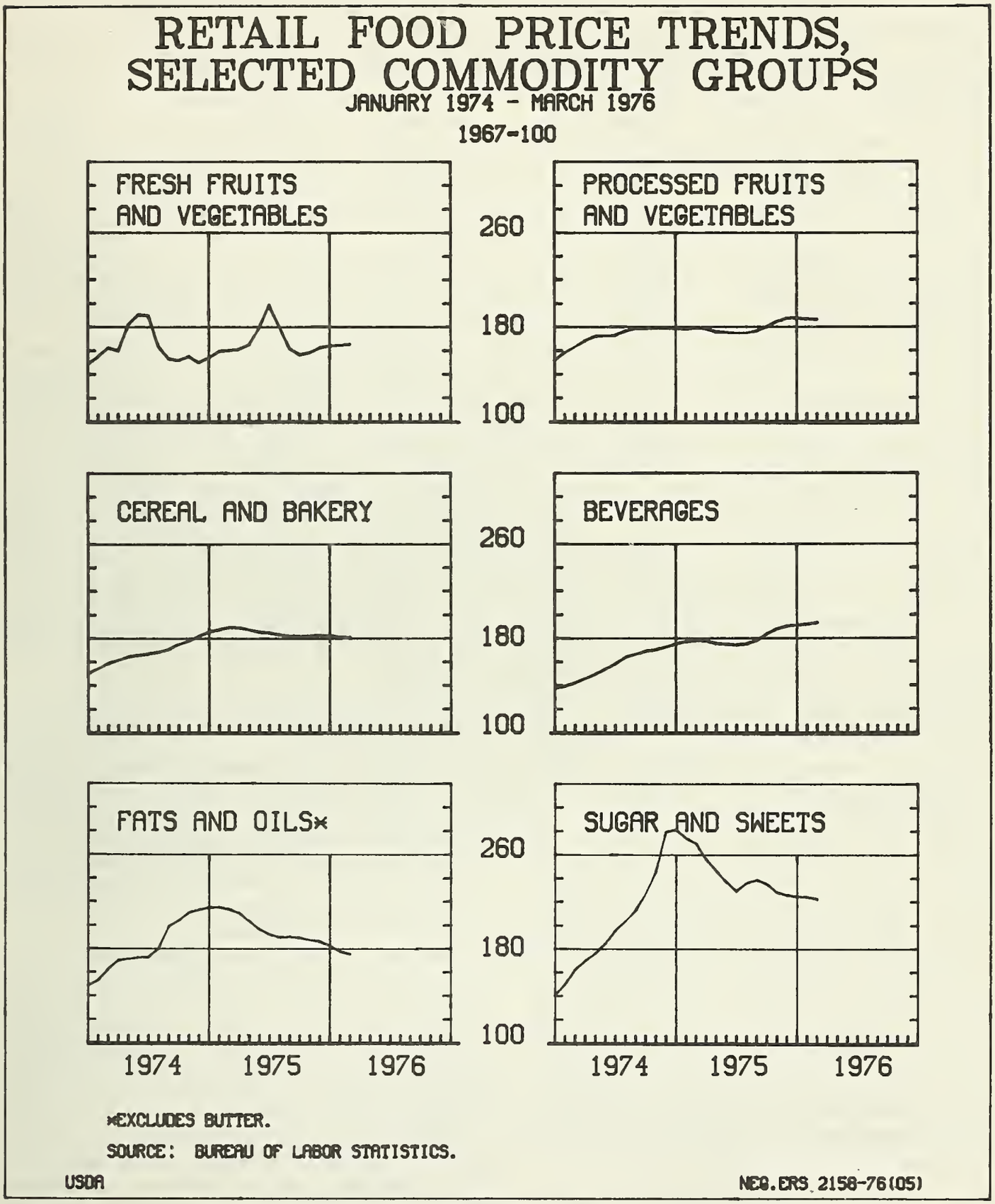
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - MARCH 1976
1967=100
FRESH FRUITS AND VEGETABLES
PROCESSED FRUITS AND VEGETABLES
CEREAL AND BAKERY
BEVERAGES
FATS AND OILS*
SUGAR AND SWEETS
260
180
100
1974
1975
1976
*EXCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2158-76(05)

Figure 8

of birds slaughtered increased 14 percent while the average marketing weight rose 1 percent. Chick placements indicate broiler marketings in April-June will be around 12 percent above 1975. Profit margins were favorable during the first quarter of 1976 and are expected to remain favorable during coming months. Thus, broiler output is expected to continue above a year earlier during the second half of 1976 but will not show as large a percentage increase from 1975 levels as the first half of 1976. Total broiler production in 1976 is likely to be around 10 percent above 1975.

Consumption of chicken meat in 1975 totaled 40.3 pounds per person. Young chickens (mainly broilers) accounted for 36.9 pounds; other chicken for 3.4 pounds. Preliminary data indicates that increased production resulted in around 9.6 pounds of young chicken consumed per person in the first quarter of 1976, up from 8.5 a year earlier. Consumption of young chicken may total 40 or more pounds per person in 1976, well above the record 38.4 pounds per capita in 1972.

Retail poultry prices in the first quarter of 1976 declined from fourth quarter 1975 levels but remained above year-earlier levels as strong demand offset a large increase in poultry production.

Wholesale broiler prices in nine cities during the first quarter of 1976 averaged a little over 42 cents a pound, down 3 cents from last fall but 1 cent above January-March 1975. Wholesale broiler prices will likely remain in the low to mid-40-cents-a-pound range through this summer. However, increased supplies of meats will likely result in broiler prices this fall dropping below 40 cents a pound. Retail broiler prices are expected to show a small decline in the second quarter and average near April-June 1975. Prices may advance this summer before declining again in the fall.

Turkey meat consumption in 1975 totaled 8.6 pounds per person, down from 8.9 in 1974. Preliminary estimates indicate 1.2 pounds of turkey meat were consumed per capita in the first quarter of 1976, compared with 1.1 pounds a year earlier. Production of turkey meat in 1976 is expected to be up substantially from 1975 but per capita consumption may only about match the record 9.0 pounds consumed in 1972. This is because of reduced cold storage stocks. Turkey meat in cold storage on January 1, 1976 was at the second lowest level since 1961. Retail turkey prices are expected to drop from the first quarter this spring and may show some additional weakness this summer. Prices likely will advance seasonally in the fall.

Fish—Demand for existing supplies of seafood products in the first quarter of 1976 was strong, reflecting the upturn in the market in the latter half of last year. Supplies of many products, however, are limited, particularly in light of strong demand. Total inventories of frozen fish and shellfish on April 1 were 309 million pounds—8 percent below a year earlier. Products which appear to be in somewhat low supply include flounder, haddock and ocean perch fillets, canned salmon, halibut, shrimp, scallops, and lobster tails.

Relatively low supplies have limited increases in consumption of some items this year. In addition, high prices of fishery products, in comparison to competing meat and poultry items, have moderated sales at retail. Demand in the food service sector (particularly fast food outlets), however, has remained high and continues to support the total market for seafood. Consequently, fish prices during the first quarter rose 3 percent above the fourth quarter of 1975.

Overall demand for seafoods will likely remain fairly strong throughout much of 1976 in response to improving consumer incomes and increased travel. Projected increases in red meat prices in the near future will place seafoods in a better competitive position. Supplies of most fresh and frozen products will further tighten during the second quarter, reflecting relatively low holdings here and abroad. Increases in consumption may be limited in the near term and prices of many fishery items will continue to rise. The influx of seasonally heavy supplies in the second half will allow consumption to improve, although the gains in supply will be limited by reduced catch quotas for most countries.

Supplies of canned products are expected to increase significantly from 1975. A projected gain in the catch of salmon will probably swell available supplies of that product in the second half, and stronger markets for canned sardines and tuna will likely attract increased imports. Domestic production of sardines will probably continue to be limited but the canned tuna pack is expected to increase somewhat. If available supplies improve as expected, only moderate price advances will be recorded in the second half.

Fats and Oils—Per capita disappearance of food fats and oils in 1976 is estimated at about 55 pounds, up from the 53.3 pounds of 1975. Increased disappearance is expected for margarine, shortening, and cooking and salad oils. Disappearance of lard may rise slightly as production increases due to expanding hog slaughter. However, butter use is expected to be down again.

Despite record domestic disappearance of soybean oil, supplies are more than ample. Heavy soybean crushings, due primarily to the strong demand for soybean meal, account for the large soybean oil supplies. Record soybean supplies insure an adequate source of vegetable oil. Also,

Table 3--Livestock products: Per capita consumption indexes, quarterly, 1969-76 1/
(1967=100)

Year and quarter	Meat	Poultry	Eggs	Dairy products: Excluding butter	Dairy products: Including butter	Animal fats: including butter	Total livestock products 2/
1969 I	102.9	85.2	99.4	98.2	98.7	100.7	99.3
II	99.5	97.3	97.0	102.8	102.2	88.1	99.7
III	102.7	106.9	96.9	100.6	100.1	95.6	101.9
IV	103.7	123.5	99.1	99.2	99.2	95.2	103.8
1970 I	101.5	91.8	98.9	98.9	98.9	99.4	99.4
II	100.8	102.1	96.5	100.4	99.4	83.7	99.9
III	104.8	113.2	97.2	100.2	99.7	84.3	103.1
IV	109.7	124.5	101.0	98.5	98.6	93.9	106.7
1971 I	106.2	92.8	98.2	99.0	99.0	98.8	101.8
II	106.1	100.7	96.4	100.2	99.3	83.7	102.3
III	109.0	113.0	95.2	100.5	99.5	88.2	105.2
IV	107.6	127.9	98.4	98.7	98.8	91.3	105.8
1972 I	105.4	98.0	98.7	99.7	99.2	89.1	101.9
II	104.8	108.4	93.3	101.0	100.0	79.8	102.3
III	103.7	115.7	92.9	100.6	99.7	82.4	102.5
IV	107.5	131.7	94.3	100.2	99.7	85.6	106.1
1973 I	100.9	95.6	92.4	99.7	99.2	82.5	98.8
II	95.3	101.7	91.5	100.7	99.8	78.8	96.8
III	93.3	107.1	87.6	100.3	99.3	75.7	95.9
IV	102.2	124.1	91.5	100.1	99.0	76.9	102.2
1974 I	102.5	99.0	90.5	99.1	97.7	73.7	99.3
II	104.4	108.0	89.5	98.7	97.4	74.0	101.0
III	104.2	108.6	87.6	100.3	99.4	78.5	101.4
IV	107.3	120.1	88.6	99.5	98.5	77.2	103.9
1975 I	104.2	91.2	86.6	98.1	97.8	82.6	99.0
II	97.5	101.8	83.7	100.6	99.6	77.2	97.2
III	98.7	107.8	85.6	102.5	101.0	69.6	98.9
IV	103.7	125.2	87.6	100.5	99.5	75.3	102.9
1976 3/I	108.0	99.8	86.6	99.6	98.7	76.9	102.0

1/ Civilian consumption only. Quantities of individual foods, measured in pounds equivalent to the form sold by retail food stores, combined in terms of average 1957-59 retail prices. 2/ Excludes fish and honey. 3/ Preliminary.

large imports of coconut and palm oils are more than offsetting smaller lard and cottonseed oil production, tending to increase total vegetable oil supplies. Lower wholesale prices for food fats and oils, along with improved incomes and lower unemployment, favor greater consumption of food fat products.

Peanut supplies are record large and more than enough to meet food and farm requirements. However, use is up strongly this season. So far, use in edible products is averaging about 8 percent above a year ago. Use is up in peanut candy, salted peanuts, and peanut butter. For the entire season per capita disappearance is expected to total nearly 7 pounds (kernel basis) compared with about 6½ pounds last season.

First quarter retail prices of fats and oils averaged 5 percent below the previous quarter and 17 percent lower than a year ago. Prices for these products are expected to be relatively stable for the remainder of this year.

Dairy—Widespread increases in milk production brought output to 39.5 billion pounds during January-April, up more than 2 percent from 1975, on a daily average basis, and the largest in 4 years. Induced by heavier grain feeding this year, milk production per cow was up more than 4 percent in April, the sharpest year-to-year gain since September 1969. Milk cow numbers in April were unchanged since February and down only 1 percent from last year. During the first quarter, per capita consumption was about 1 percent above first quarter 1975.

Wholesale butter and cheese prices have been rather unsettled since the first of the year. After strengthening contra-seasonally from February, butter and cheese prices remained above support purchase levels in early May. Nonfat dry milk prices were close to support levels and small CCC purchases have been made.

Retail prices of dairy products during the first quarter 1976 averaged 3½ percent above fourth quarter 1975. Retail prices may increase moderately during the remainder of this year.

Fruits and Vegetables—First quarter 1976 retail prices for all products in this category averaged 3 percent above fourth quarter 1975. Processed fruits and vegetables rose about 1½ percent, while fresh vegetables and potatoes were about 6 percent higher. Fresh fruit prices were fractionally lower.

Fruits—Large fresh and processed supplies generally continue to dominate the fruit situation. May 1 prospects point to a 1975/76 citrus crop nearly as large as the record 1974/75 season but fruit remaining for harvest was moderately smaller than a year ago. Current stocks of canned noncitrus fruit are substantially larger than a year ago, reflecting the big carryover last summer and slightly lower movement. April 1 cold storage holdings of fresh apples and pears were also well above a year earlier. However, remaining supplies of dried fruit are down moderately because of good movement to date. Stocks were also lower for many frozen fruits and berries as of April 1—especially strawberries, peaches, and blueberries.

While certain areas have experienced some damage to their 1976 fruit crop from freezing temperatures this spring, many important commercial producing areas report minimal or no damage to date. As of May 1, peach production in 9 Southern States was forecast 38 percent above the 1975 crop. It is still too early to determine 1976 prospects for the total noncitrus fruit crop.

Retail prices for fresh fruit likely will increase seasonally during the second and third quarters of 1976, reflecting the seasonal decline in fruit supplies, but will average moderately lower than a year earlier. Prices during the fourth quarter will decline as fruit supplies increase seasonally. The retail price index for fresh fruit during 1976 is expected to average slightly below 1975. However, the retail index for processed fruit may show a slight increase, reflecting slightly higher prices of processed fruit juices.

Vegetables—The prospective acreage of 14 spring *fresh market vegetables* is 7 percent larger than a year ago. With yields equal to the 1973-75 average, output this spring would be 2 percent higher than last year. There are larger acreages of all major crops, sharply larger carrot and sweet corn plantings and substantially more tomatoes and peppers. The only exception is a 10 percent cut in lettuce acreage. In addition to these prospective larger supplies, there will be a 35-percent larger spring onion crop. Excluding California where processing is important, a moderately larger summer onion acreage is expected, too.

Fresh vegetable imports from Mexico thus far in 1976 have been up by about a half from last year. All the important import crops share in this gain—cucumbers, peppers, and tomatoes. Tomatoes have accounted for half the import total. With reasonably good harvests expected to continue, supplies from Mexico will be available until late June. However, comparisons with a year earlier will show less difference, because Mexico attained heavy volume late in their 1974/75 shipping season. Due to heavier supplies of fresh vegetables expected this spring, grower prices probably will be lower than the second quarter of last year. Retail prices should hold near both year-earlier and first quarter 1976 levels.

With the carryover of *processed vegetables* expected to be the largest in recent years, the processing vegetable industry expects to reduce 1976 acreage of eight major commodities by 14 percent.

Table 4--Civilian per capita consumption of major food commodities (retail weight) and civilian population, selected years 1/

Commodity	1960	1967	1973	1974	1975 5/	1975 as percent of 1974
			Pounds			Percent
Meats:						
Beef	134.2	145.1	142.3	152.2	145.2	95
Veal	64.3	78.8	81.1	86.4	88.9	103
Lamb and mutton	5.2	3.2	1.5	1.9	3.5	179
Pork (excluding lard)	4.3	3.5	2.4	2.0	1.8	90
	60.4	59.6	57.3	61.9	51.0	82
Fish (edible weight)	10.3	10.6	12.9	12.1	12.1	100
Poultry products:						
Eggs	42.4	40.7	37.3	36.6	35.3	96
Chicken (ready-to-cook)	27.8	36.5	40.7	41.1	40.3	98
Turkey (ready-to-cook)	6.2	8.6	8.5	8.9	8.6	97
Dairy products:						
Cheese	8.3	10.1	13.7	14.6	14.5	99
Condensed and evaporated milk	13.7	9.0	6.0	5.6	5.0	89
Fluid milk and cream (product weight)	321.0	303.0	293.0	288.0	291.0	101
Ice cream (product weight)	18.3	17.8	17.5	17.5	18.8	107
Fats and Oils--Total, fat content	45.3	49.4	54.3	53.2	53.3	100
Butter (actual weight)	7.5	5.5	4.8	4.6	4.7	102
Margarine (actual weight)	9.4	10.5	11.3	11.3	11.2	99
Lard	7.6	5.4	3.4	3.2	2.9	91
Shortening	12.6	15.9	17.3	17.0	17.3	102
Other edible fats and oils	11.5	15.2	20.8	20.3	20.3	0
Fruits:						
Fresh:	89.6	79.1	73.8	76.2	79.6	104
Citrus	32.5	30.6	26.4	26.5	27.9	105
Apples (commercial)	17.6	15.6	14.5	15.3	16.7	109
Other (excluding melons)	39.5	32.9	33.1	32.2	33.0	102
Processed:						
Canned fruit	22.6	22.6	21.3	19.8	19.0	96
Canned juice	13.0	11.7	15.9	14.7	14.7	0
Frozen (including juices)	9.1	10.1	11.2	11.3	12.7	112
Chilled citrus juices	2.1	4.4	5.3	5.2	5.7	110
Dried	3.1	2.8	2.6	2.4	2.7	112
Vegetables:						
Fresh 2/	96.0	90.8	92.5	93.4	93.1	100
Canned, excluding potatoes and sweetpotatoes	43.4	48.8	54.3	53.4	53.2	100
Frozen, excluding potatoes	7.0	9.0	10.7	9.4	9.6	102
Potatoes (including fresh equivalent of processed)	103.7	104.5	113.1	108.6	118.2	109
Sweetpotatoes (including fresh equivalent of processed)	6.4	5.3	4.9	5.3	5.3	0
Grains:						
Wheat flour 3/	118	112	109	106	107	101
Rice	6.1	7.5	7.0	7.3	7.4	101
Other:						
Coffee	11.6	11.1	10.1	9.4	9.0	96
Tea	0.6	0.7	0.8	0.8	0.8	0
Cocoa	2.9	3.4	3.4	3.0	2.4	80
Peanuts (shelled)	4.9	5.7	6.6	6.4	6.8	106
Dry edible beans	7.3	6.9	6.5	6.7	6.7	0
Melons	23.2	20.3	19.7	17.2	17.2	102
Sugar (refined)	97.6	97.3	102.1	97.0	88.7	91
			Millions			
Civilian population 4/	178.1	195.3	208.1	209.7	211.4	101

1/ Quantity in pounds, retail weight unless otherwise shown. Data on calendar year basis except for dried fruits, fresh citrus fruits, peanuts, and rice which are on a crop-year basis.
2/ Commercial production for sale as fresh produce.
3/ White, whole wheat, and semolina flour including use in bakery products.
4/ July 1 civilian population used to derive per capita figures expect for sugar, dried fruits, peanuts, and rice.
5/ Preliminary.

NOTE: Prior to the February 1976 issue of the National Food Situation, data in this table were shown on a primary distribution weight basis (e.g. carcass weight for meat). Historical data on a retail weight basis may be found in the Food Consumption, Prices and Expenditures, Supplement for 1974 to Agricultural Economic Report No. 138, ERS, USDA.

This would mean 1.62 million acres instead of the 1.89 million planted in 1975. The most conspicuous changes expected this season are a 15-percent cut in tomato acreage, sharp cutbacks in lima beans for both canning and freezing, and the prospect of a 23-percent reduction in peas for freezing. Generally speaking, these acreage cuts, plus recent stepped-up purchasing activity have tended to firm wholesale prices which had been falling slowly but steadily the past 9 months.

With average yields this season, about 14 to 17 percent less raw tonnage of processed vegetables might be expected, if planting intentions are carried out. If yields fall back to 1973 and 1974 levels, the total supply of processed vegetables would still be adequate for normal requirements in light of the larger inventories. With stronger demand, per capita consumption for all of 1976 may be up slightly from 1975.

Potatoes—Potato growers intend to plant 1.1 million acres, 3.8 percent more potato acreage than last year for the important fall crop this year over last. Three-fourths of the increase is set in Idaho, Washington, and Oregon. With potato land in the latter two States typically higher yielding than the U.S. average, total U.S. output could be 4 to 5 percent more than 1975. Grower and retail prices can be expected to decline seasonally by early September and could be under additional moderate downward pressure this fall if this prospect materializes.

Summer potato acreage is intended to be 124,500, up 3 percent from a year earlier. Therefore, for the entire year, 1976 potato output of more than 330 million cwt. is possible, particularly if fall growers carry out their expansion plans. The comparable 1975 figure was 316 million cwt., 1974 a record 342 million.

Beverages—First quarter retail beverage prices averaged 2½ percent above fourth quarter 1975, and 9 percent above a year earlier. Much higher coffee prices accounted for most of the increase.

The 1975/76 world coffee crop is now indicated at 71.6 million bags (132.3 pounds each) down 11 percent from 1974/75. The current estimate is down 0.9 million bags from the December estimate. 1975/76 exportable production is estimated at 52.6 million bags.

The U.S. average retail price of regular coffee was $1.56 per pound in March, up from $1.28 last August, the most recent month which was not affected by last July's frost. Both regular and instant retail coffee prices in March were up about a fifth from the August level.

Retail coffee prices are likely to continue increasing, further inhibiting use. Thus, per capita coffee consumption is expected to further decline from the 1975 level of 12.3 pounds.

Sugar and Sweets—Retail sugar prices during the first quarter of 1976 averaged 19 percent below a year earlier, after dropping 2½ percent from the fourth quarter. Recent estimates indicate a world sugar crop of around 90.4 million short tons, about 5 percent above the reduced 1974/75 crop. With expanding use of sugar, the world consumption estimate for the current marketing year about matches the larger world output. But carryover stocks from the 1975/76 marketing year are relatively small.

Although both world and U.S. raw prices may strengthen seasonally this summer, not much change in prices is expected, at least until new crop prospects for sugar begin to significantly influence the market. U.S. retail prices are expected to remain relatively stable for the rest of the year.

Domestic use of sugar this year may total 10.5 to 11 million tons (raw value), implying an increase in per capita refined use to 92 to 95 pounds, compared with under 90 pounds in 1975 when prices of sugar products were record high.

FOOD SPENDING AND INCOME

Total personal consumption expenditures for food in the first quarter 1976 were $194.2 billion (seasonally adjusted annual rate), a 1.9 percent increase over the fourth quarter 1975. Spending for food away from home recorded additional gains reflecting rising consumer incomes, greater employment and a slight moderation in restaurant price advances. After rising at a record quarterly rate of nearly 7 percent from the third to the fourth quarter last year, away-from-home spending rose 2 percent during the first quarter. Spending for food at home was 2 percent higher reflecting stronger demand.

Compared to a year earlier, total first quarter food spending was up nearly 9 percent, a smaller yearly increase than in previous quarters reflecting smaller price increases. Spending for food at home was 7 percent above a year earlier while away-from-home expenditures were up about 13½ percent.

Because the quarterly increase in food spending was smaller than the 2.4 percent increase in disposable personal income, the percent of disposable personal income allocated to personal consumption expenditures for food declined to 17.0 percent. The percentage allocated to food expenditures was also slightly below a year earlier (table 5).

All of the first quarter increase for food at home was

Table 5--Expenditures for food in relation to disposable income, 1960-76 1/

Year	Disposable personal income	Personal consumption expenditures for food 2/					
		For use at home 3/		Away from home 4/		Total	
		Amount	Percentage of income	Amount	Percentage of income	Amount	Percentage of income
	Bil. dol.	Bil. dol.	Pct.	Bil. dol.	Pct.	Bil. dol.	Pct.
1960	349.4	56.3	16.1	14.2	4.1	70.5	20.2
1961	362.9	57.3	15.8	15.1	4.2	72.4	20.0
1962	383.9	57.8	15.1	16.1	4.2	73.9	19.3
1963	402.8	58.8	14.6	17.0	4.2	75.8	18.8
1964	437.0	62.2	14.2	18.0	4.1	80.2	18.3
1965	472.2	66.8	14.2	19.0	4.0	85.8	18.2
1966	510.4	72.4	14.2	20.2	3.9	92.6	18.1
1967	544.5	74.0	13.6	21.0	3.9	95.0	17.5
1968	588.1	79.5	13.4	23.2	3.9	102.7	17.5
1969	630.4	84.7	13.4	24.8	3.9	109.5	17.3
1970	685.9	91.8	13.4	26.8	3.9	118.6	17.3
1971	742.8	94.2	12.7	27.8	3.7	122.0	16.4
1972	801.3	100.5	12.5	30.1	3.8	130.6	16.3
1973	903.1	112.9	12.5	33.9	3.8	146.8	16.3
1974	983.6	128.4	13.0	38.1	3.9	166.5	16.9
I	953.8	123.0	12.9	36.1	3.8	159.1	16.7
II	968.2	125.6	13.0	37.4	3.8	163.0	16.8
III	996.3	131.4	13.2	38.6	3.9	170.0	17.1
IV	1,015.9	133.6	13.2	40.1	3.9	173.7	17.1
1975	1,076.7	141.0	13.1	43.4	4.0	184.4	17.1
I	1,024.0	137.2	13.4	41.5	4.1	178.7	17.5
II	1,081.7	139.1	12.9	42.7	3.9	181.8	16.8
III	1,087.1	143.3	13.2	43.2	4.0	186.5	17.2
IV	1,114.0	144.5	13.0	46.1	4.1	190.6	17.1
1976							
I 5/	1,140.7	147.3	12.9	47.0	4.1	194.2	17.0

1/ Quarterly data are seasonally adjusted annual rates. All data reflect the January 1976 revision in the National Income and Product Accounts. 2/ Data of the Department of Commerce in the Survey of Current Business. Omits alcoholic beverages, food donated by Government agencies to schools and needy persons, and non-personal spending for food such as business purchases of meals, food furnished inmates of hospitals and institutions, and food included with transportation tickets and camp fees. 3/ Includes food consumed on farms where produced. 4/ Includes food served to the military and employees of hospitals, prisons, and food service establishments. 5/ Preliminary.

Change in food expenditures, first quarter, 1976 (Seasonally adjusted)

Item	From fourth quarter 1975	From first quarter 1975
	Percent	*Percent*
Total food		
Current dollars	1.9	8.7
1972 dollars	2.9	5.4
Food at home		
Current dollars	2.0	7.3
1972 dollars	4.0	5.2
Food away from home		
Current dollars	1.9	13.4
1972 dollars	-.3	6.1

Proportion of total consumer expenditures

Item	1st quarter	
	1975	1976
	Percent	*Percent*
Food excluding alcoholic beverages	19.3	18.9
Nondurables excluding food	23.2	22.9
Clothing and shoes	7.2	7.1
Gas and oil	5.1	5.2
Other	10.9	10.6
Durables	12.8	14.2
Automobiles and parts	4.8	6.0
Other	8.0	8.2
Services	44.6	44.0
Housing	15.5	15.3
Household operation	6.5	6.5
Transportation	3.6	3.5
Other	19.0	18.7

due to increases in the quantities of food purchased. After adjusting for price movements, food-at-home expenditures rose at a quarterly rate of 4.0 percent reversing the downward trend during the last half of 1975. Much of the fourth quarter decline in at-home spending occurred because of a shift in demand to away-from-home spending. During the fourth quarter, away-from-home spending in constant dollars posted a record 5½-percent increase, more than offsetting the slight decline in price adjusted food store spending. Despite rising incomes and employment, real away-from-home spending during the first quarter of this year declined slightly. Consequently, total food expenditures in constant dollars during the first quarter were 2.9 percent above the fourth quarter.

Proportion of Total Consumer Expenditures

Compared to a year ago, consumers in the aggregate are allocating a smaller proportion of their total expenditures to food. The proportion of spending on other nondurable goods and all categories of services has also declined slightly since the first quarter of last year. Consumers are spending a far larger proportion of their budgets on durable goods, especially automobiles. Expenditures on automobiles were 40 percent above last year, spending on furniture and household equipment rose 13½ percent.

Total personal consumption expenditures were $28.6 billion above the fourth quarter of 1975. Nearly one-third of the increase in personal consumption expenditures resulted from increases in purchases of durable goods while increased food spending accounted for over 10 percent of the rise. Because the quarterly increase in consumption expenditures was greater than that for disposable personal income, the savings rate dropped from 7.9 percent to 7.6 percent.

Quarterly changes in personal expenditures and disposable personal income (Seasonally adjusted)

Item	1975			1976
	II	III	IV	I
	Pct.	*Pct.*	*Pct.*	*Pct.*
Personal consumption expenditures	2.6	2.9	2.4	2.9
Durable goods	4.1	6.5	4.4	6.0
Nondurable goods	2.7	2.9	1.8	1.7
Food	1.7	2.6	2.2	1.9
Other	3.5	3.1	1.4	1.5
Services	2.0	1.8	2.4	3.0
Personal disposable income	5.6	.5	2.5	2.4

USDA Food Programs

Average participation in the Food Stamp Program in the first quarter, up slightly from a year earlier rose less than usual from the fourth quarter rate. Participation averaged 18.8 million, a 1.1-percent increase over both the first and fourth quarter of last year. However, after adjusting for the usual seasonal variation, participation dropped nearly 2 percent from the fourth quarter. The balance between public assistance and nonpublic

assistance participants remained roughly the same as the previous quarter with nonpublic assistance participants comprising 54 percent of total enrollment.

Bonus Stamps, those not paid for by the recipient, totaled $1.4 billion during the first quarter, an 8 percent increase from the previous quarter (table 6). This increase was due to greater program participation and the January cost of living adjustment in the coupon allotment. The average bonus per person was $24.62. Total food purchases with food stamps, including those stamps purchased by the recipient, were $2.3 billion during the first quarter, representing 6 percent of at-home food expenditures.

The Department of Agriculture has recently announced regulations which will alter participation levels and benefits. The uniform national standards for income elegibility will be revised based upon the poverty guidelines prescribed by the Office of Management and Budget. These guidelines will not apply to households receiving public assistance or Supplemental Security Income, since those households are automatically eligible for food stamps. These standards will reduce the income that a family may earn and remain eligible to participate in the program. For example, the maximum net monthly income a family of four may earn has been reduced 13 percent from $553 per month to $458 per month.

Earnings during the three months prior to applying for stamps will be used as a measure of income eligibility rather than the current practice of estimating future income.

The current system of itemized deductions from gross income has been replaced by a standard deduction of $100 per month or $125 per month if the household includes one or more persons age 65 or older. This means that a four person household may have a gross income no higher than $558 per month. Uniform purchase requirements have also been instituted. All households will pay 30 percent of net income. Currently the purchase price varies according to household size and income. This provision will generally increase the price paid by the participant for the stamp allotment. The magnitude of the impact, the uniform standard deduction will have on the bonus allotment received by those remaining on the program will depend upon whether or not the itemized deductions they are currently taking fall short of or exceed $100 per month. If those deductions currently fall short of $100, the new regulation will result in lower net incomes, and consequently, a lower price paid for the coupon allotment.

In addition, participating households with fluctuating incomes will be required to file monthly income reports, income exclusions have been limited, work registration provisions have been strengthened and accountability for coupon and cash collections has been tightened.

USDA will allow States to phase implementation of the regulations. Provisions concerning the purchase requirements and income elegibility must be put in effect for new applicants starting June 1. All provisions must be in effect for new and previous participants by December 31.

Child Nutrition Programs

An average of 25.7 million children participated in the School Lunch Program during the first quarter, up 500,000 from the same period a year earlier. Of those children, 39 percent received their lunches free, 58 percent paid the full price for the lunch, and 3 percent received their lunches at reduced prices. These proportions remained essentially unchanged from last year. An average of 2.2 million children participated in the School Breakfast Program for the quarter, up from the average 1.9 million a year earlier. Nearly 81 percent of these children received their breakfasts free while 19 percent paid the full price. A small number of students received their breakfasts at a reduced price. The increased participation in the School Breakfast Program occurred mainly because of the greater number of schools participating in the program.

Schools received $491.1 million in cash grants for the School Lunch Program and $26.1 million for the School Breakfast Program during the quarter (table 6). In addition, schools received commodities valued at $155.5 million and cash grants under the Special Milk Program totalling $480 million. In total, schools received over $700 million, a 15 percent increase over a year ago. This increase resulted from greater participation in the program along with increases in the reimbursement rates per meal served.

USDA Target Programs

In addition to the Food Stamp Program and child feeding programs funded through schools, USDA has programs targeted at special groups. Children at day care centers and other qualified nonprofit centers received food valued at $26.1 million during the quarter through the Child Care Program. The Women's, Infants and Children's Program provides specific nutritional food supplements to pregnant mothers and infants and children up to the age of five who are "nutritional risk" because of inadequate incomes. Nearly $37 million was donated during the quarter. The Nutrition Program for the Elderly provided food valued at $1.9 million under Title VII of the Older Americans Act.

Total federal expenditures on cash and com-

Table 6--Federal cost of USDA food programs, 1970-76

Year	Food stamps		Food distribution 2/			Child nutrition 5/				WIC 7/	Total 8/
	Total issued	Bonus stamps 1/	Needy families	Schools 3/	Other 4/	School lunch	School breakfast	Special food 6/	Special milk		
	Million dollars										
1970	1,925	1,104	294	272	35	366	14	16	96	---	2,197
1971	3,103	1,699	318	297	40	645	22	34	92	---	3,146
1972	3,615	1,980	271	283	40	764	28	44	91	---	3,501
1973	4,049	2,209	223	257	43	959	44	52	64	---	3,852
I	999	546	59	91	11	297	12	5	30	---	1,051
II	992	537	58	51	11	220	9	9	23	---	920
III	1,007	554	59	33	10	115	6	33	1	---	810
IV	1,052	572	47	82	11	327	17	5	10	---	1,072
1974	5,868	3,498	115	390	37	1,160	68	90	88	32	5,478
I	1,316	794	47	129	9	367	20	9	21	1	1,396
II	1,353	799	37	65	10	274	16	15	16	6	1,239
III	1,488	885	17	63	6	139	8	54	15	10	1,199
IV	1,711	1,020	14	133	11	379	24	12	36	15	1,644
1975	8,308	5,063	12	372	35	1,373	98	111	134	110	7,308
I	1,996	1,223	4	145	11	423	28	13	39	19	1,904
II	2,064	1,254	3	92	10	342	25	14	33	31	1,805
III	2,121	1,301	3	26	7	165	12	71	19	30	1,634
IV	2,147	1,285	2	109	7	443	33	13	43	30	1,965
1976 9/											
I	2,252	1,388	2	156	7	491	37	26	48	37	2,192

1/ Includes Food Certificate Program. 2/ Cost of food delivered to State distribution centers. 3/ Includes Special Food Services. 4/ Includes supplemental food, institutions, elderly persons. 5/ Money donated for local purchase of food. Excludes nonfood assistance. 6/ Includes Child-Care and Summer Food Programs. 7/ Special Supplemental Food Program for Women, Infants, and Children begun January 1974. 8/ Excludes those food stamps paid for by the recipient. Do not add due to rounding. 9/ Preliminary.

modities totaled $2.2 billion during the first quarter 1976. Expenditures were 11½ percent higher than the previous quarter and 15 percent higher than a year ago. Federal expenditures on all USDA food programs represents 4½ percent of total Personal Consumption Expenditures for food.

SUPPLY AND UTILIZATION

The 1975 index of net utilization (utilization exclusive of domestic feed and seed use) of U.S. farm food commodities increased by 1 percent from 1974 (table 7). Most of the increased use was attributed to an almost 9-percent rise in the index of exports. Domestic food use, which accounted for four-fifths of total net utilization, declined slightly.

On the supply side, net production of farm food commodities increased more than 11 percent in 1975, reflecting a 16-percent gain in food crops. Imports, which accounted for less than one-tenth of net use, fell over 2½ percent. Inventories or stocks, the third component of supply, were nearly 9 percent lower at the beginning of 1975 than a year earlier. But ending year stocks were up by more than 16½ percent. Inventory accumulation amounted to 5½ percent of net utilization in 1975, reversing the drawdown of the previous 3 years.

Gross production of crop food commodities increased by 16 percent in 1975. Most of this gain reflected higher yields in contrast to the drought-reduced 1974 crops. Grains and oilseeds showed the greatest gains. Since the marketing season for these crops extends well into 1976 much of the increased production is reflected by larger ending inventories on a calendar-year basis.

Feed use fell 16 percent in response to reduced corn harvests in 1974, higher prices for feed, and cutbacks in livestock production. The large crop in 1975 and some holdback in marketings resulted in a buildup in inventories equivalent to some 10 percent of total utilization of crop food commodities during 1975. Crop exports increased more han 8 percent with wheat showing a 22-percent increase.

Due to the high costs and short supply of feed during the 1974/75 feeding year, gross production of livestock food commodities decreased by 1½ percent during 1975. Stocks were drawn down by ½ percent of total utilization and imports fell by 2½ percent. Total net utilization fell slightly as lower domestic use offset larger exports.

The 1976 index of utilization of farm food commodities is expected to increase about 2½ percent from 1975. Although net production and imports are expected to be about the same as last year, the total supply is being boosted by larger stocks. Beginning inventories in 1976 rose by more than 16½ percent from 1975 and ending inventories are expected to be 8 percent greater than 1975. This additional stock buildup may be equivalent to more than 3 percent of net utilization. Total domestic use, excluding seed and feed, is expected to rise nearly 3 percent in 1976. Calendar-year exports are expected to remain essentially the same as last year.

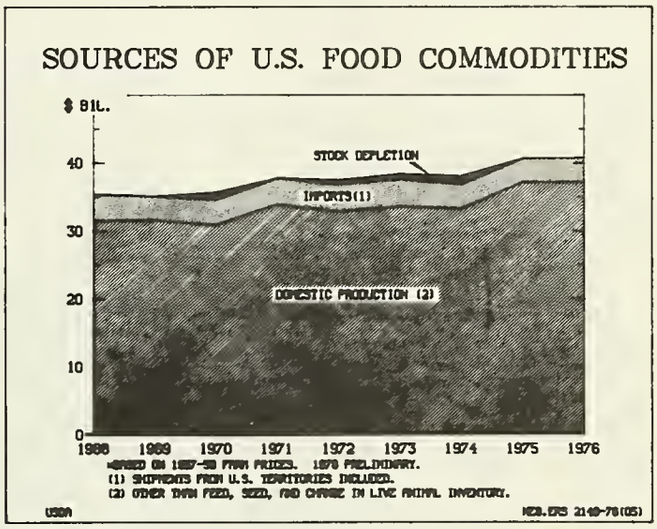

Figure 9

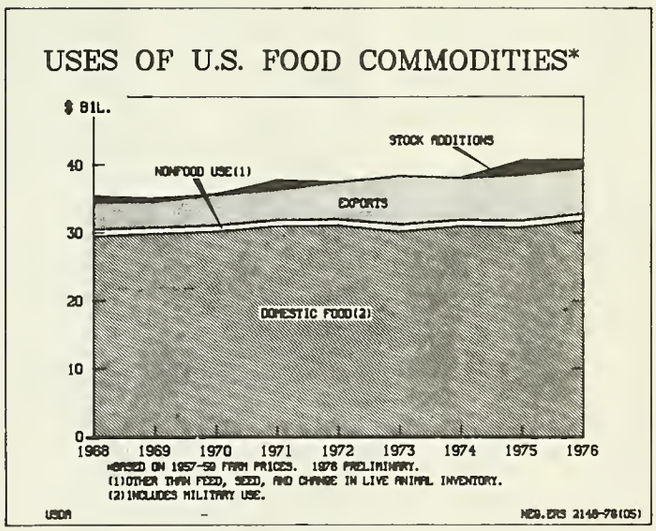

Figure 10

Utilization of livestock food commodities likely will increase about 3 percent from 1975. Gross production of livestock is expected to increase about 4 percent in 1976, recovering from the depressed 1975 level and reaching a record high. Expanded feed

Table 7--Livestock, crop and total farm food commodities: Supply-utilization indexes by component and relationship of components to annual utilization, 1970-76 1/

Year	Supply			Total annual utilization	Utilization					
					Domestic use					Exports and shipments 4/
					Food		Non-food		Total	
	Production	Imports 2/	Stocks 3/		Civilian	Military	Seed and feed	Other		
	A--All food commodities indexes: (1967=100) 5/									
1970	98.4	105.4	120.7	105.7	105.8	70.2	---	90.6	104.5	114.0
1971	108.0	110.8	111.8	107.6	108.3	62.6	---	98.7	107.1	111.9
1972	104.7	115.2	123.4	111.2	109.8	49.8	---	92.5	107.9	135.0
1973	107.0	115.5	118.3	113.7	106.5	39.2	---	103.2	105.0	178.3
1974	106.1	104.0	112.2	113.0	109.2	34.1	---	103.0	107.4	154.7
1975	118.2	101.3	102.3	114.1	108.3	40.6	---	104.0	106.8	168.3
1976 6/	118.3	102.3	119.4	116.9	111.9	36.5	---	100.9	109.9	168.3
	Livestock food commodities: (1967=100)									
1970	103.5	124.6	97.5	104.8	105.8	71.6	102.0	95.8	104.7	108.7
1971	106.1	116.8	106.9	107.4	108.5	61.4	99.1	89.9	106.9	127.8
1972	105.6	134.1	102.4	107.7	109.2	49.3	99.5	92.2	107.4	121.5
1973	100.6	145.0	93.1	102.6	104.5	37.0	97.5	81.8	102.4	109.9
1974	105.5	119.2	103.2	106.5	109.1	32.0	87.3	89.9	106.6	106.0
1975	103.9	116.2	111.6	105.7	107.8	38.4	81.6	91.9	105.4	120.7
1976 6/	108.2	121.9	91.6	109.3	111.6	33.8	90.9	77.6	108.8	130.8
	Crop food commodities: (1967=100)									
1970	98.1	100.6	121.9	109.3	105.8	64.9	114.2	88.2	108.1	114.7
1971	113.5	109.3	112.1	111.0	108.0	67.2	117.5	103.0	111.3	109.7
1972	111.6	110.5	124.4	119.9	111.0	51.9	126.8	92.7	122.2	136.9
1973	119.5	108.2	119.6	128.1	111.0	47.3	121.1	113.4	114.7	187.9
1974	108.5	100.3	112.6	119.3	109.2	42.0	112.1	109.3	109.8	161.5
1975	125.8	97.7	101.9	116.4	109.5	48.9	95.2	109.8	103.2	175.0
1976 6/	126.8	97.5	120.8	122.7	112.5	46.6	110.9	112.1	111.3	173.6
	B--All food commodities: Percentage of annual utilization 5/									
1970	86.6	10.3	3.1	100.0	83.5	1.2	---	2.4	87.1	12.9
1971	93.3	10.6	-3.9	100.0	83.9	1.1	---	2.6	87.6	12.4
1972	87.6	10.7	1.7	100.0	82.4	.8	---	2.3	85.5	14.5
1973	87.5	10.5	2.0	100.0	78.1	.6	---	2.6	81.3	18.7
1974	87.3	9.5	3.2	100.0	80.5	.6	---	2.6	83.7	16.3
1975	96.3	9.2	-5.5	100.0	79.1	.7	---	2.6	82.4	17.6
1976 6/	94.1	9.0	-3.1	100.0	79.8	.6	---	2.4	82.8	17.2
	Livestock food commodities: Percentage of annual utilization									
1970	96.4	3.9	-.3	100.0	92.7	1.6	2.0	1.3	97.6	2.4
1971	96.3	3.6	.1	100.0	92.8	1.3	1.9	1.2	97.2	2.8
1972	95.7	4.1	.2	100.0	93.2	1.1	1.9	1.2	97.4	2.6
1973	95.7	4.6	-.3	100.0	93.6	.8	2.0	1.2	97.5	2.5
1974	96.5	3.7	-.2	100.0	94.1	.7	1.7	1.2	97.7	2.3
1975	95.9	3.6	.5	100.0	93.6	.8	1.6	1.3	97.3	2.7
1976 6/	96.5	3.7	-.2	100.0	93.8	.7	1.7	1.0	97.2	2.8
	Crop food commodities: Percentage of annual utilization									
1970	81.1	13.4	5.5	100.0	43.2	.4	34.5	2.7	80.8	19.2
1971	92.5	14.3	-6.8	100.0	43.4	.4	35.0	3.1	81.9	18.1
1972	84.1	13.4	2.5	100.0	41.2	.3	35.0	2.6	79.1	20.9
1973	84.4	12.3	3.3	100.0	38.6	.3	31.3	2.9	73.1	26.9
1974	82.3	12.2	5.5	100.0	40.8	.2	31.1	3.1	75.2	24.8
1975	97.8	12.2	10.0	100.0	41.9	.3	27.1	3.1	72.4	27.6
1976 6/	93.4	11.6	-5.0	100.0	40.9	.3	29.9	3.0	74.1	25.9

1/ Quantities weighted by constant farm prices. Domestic use allocated on basis of value of processed products. Includes essentially all commodities having any U.S. food use; for item list, see NFS-124; for 1950-67 data see NFS-136. 2/ Includes shipments from U.S. Territories. 3/ Farm (other than live animals), commercial, and Government program holdings. Section A: January 1; derived by applying annual changes to January 1961 level. Section B: Represents stock changes. Negatives indicate stock increases; positives signify withdrawals. 4/ Includes shipments to U.S. Territories. 5/ Feed and seed omitted from total commodities to avoid double counting of use through livestock. 6/ Preliminary.

Table 8.--Livestock, crop, and total farm food commodities: Supply-utilization farm equivalent aggregates 1/
(Million Dollars)

Year	Supply				Utilization					
					Domestic Use					
					Food		Non-food			
	Production	Imports	Stock changes 2/	Total annual utilization	Civilian	Military	Seed and feed	Other	Total	Exports and shipments
	A.--All food commodities									
1967	31,439	3,486	-1,133	33,792	28,177	628	---	951	29,756	4,036
1968	31,515	3,886	-918	34,483	28,863	615	---	954	30,432	4,051
1969	31,637	3,532	-520	34,649	29,395	524	---	958	30,877	3,772
1970	30,927	3,675	1,100	35,702	29,799	441	---	862	31,102	4,600
1971	33,946	3,862	-1,432	36,376	30,528	393	---	939	31,860	4,516
1972	32,924	4,017	628	37,569	30,926	313	---	880	32,119	5,450
1973	33,640	4,028	763	38,431	30,008	246	---	981	31,235	7,196
1974	33,344	3,627	1,223	38,194	30,758	214	---	980	31,952	6,242
1975	37,148	3,533	-2,118	38,563	30,525	255	---	989	31,769	6,794
1976 3/	37,180	3,567	-1,238	39,509	31,527	229	---	960	32,716	6,793
	B.--Livestock food commodities									
1967	20,792	698	-171	21,319	19,577	497	440	308	20,822	497
1968	20,906	761	97	21,764	20,000	496	425	314	21,235	529
1969	20,991	794	89	21,874	20,175	424	440	314	21,353	521
1970	21,529	870	-56	22,343	20,703	356	449	295	21,803	540
1971	22,054	815	27	22,896	21,243	305	436	277	22,261	635
1972	21,964	936	55	22,955	21,384	245	438	284	22,351	604
1973	20,920	1,012	-60	21,872	20,461	184	429	252	21,326	546
1974	21,932	832	-50	22,714	21,367	159	384	277	22,187	527
1975	21,610	811	119	22,540	21,107	191	359	283	21,940	600
1976 3/	22,504	851	-48	23,307	21,850	168	400	239	22,657	650
	C.--Crop food commodities									
1967	17,445	2,810	-962	19,293	8,600	131	6,380	643	15,754	3,539
1968	17,718	3,148	-1,015	19,851	8,863	119	6,707	640	16,329	3,522
1969	18,100	2,761	-609	20,252	9,220	100	7,037	644	17,001	3,251
1970	17,108	2,828	1,156	21,092	9,096	85	7,284	567	17,032	4,060
1971	19,798	3,071	-1,459	21,410	9,285	88	7,494	662	17,529	3,881
1972	19,461	3,105	573	23,139	9,542	68	8,087	596	18,293	4,846
1973	20,853	3,040	823	24,716	9,547	62	7,728	729	18,066	6,650
1974	18,926	2,819	1,273	23,018	9,391	55	7,154	703	17,303	5,715
1975	21,946	2,745	-2,237	22,454	9,418	64	6,072	706	16,260	6,194
1976 3/	22,128	2,741	-1,190	23,679	9,677	61	7,077	721	17,536	6,143

1/ Quantities weighted by 1957-59 farm prices.
2/ Negatives indicate stock increases, positives signify withdrawals.
3/ Preliminary.

use of the 1975 crop has resulted in larger placements of animals on feed and increased slaughter early this year. Increases are expected in all livestock items with poultry, red meats—especially pork—and dairy leading the way. Production of these commodities may range from 2 to 7 percent higher than 1975. The increased feeding of animals with long production cycles, such as cattle, could affect gross production of animals even into 1977. But crop developments, general economic conditions, and other related factors must also be considered. Imports of livestock products, which account for less than 4 percent of the total use of these commodities, may increase about 5 percent in 1976.

On the demand side, total domestic food use—the major portion of utilization for livestock food commodities—may increase by more than 3 percent. An increase of 4 to 5 percent is expected in the food use of red meats and poultry in 1976. Larger grain-fed cattle marketings and heavy cow slaughter have boosted domestic use already in 1976.

Livestock food exports are expected to rise by more than 8 percent, surpassing the high level of 1971 and reaching the highest level since 1964. Increases of 7 to 16 percent are likely among major categories.

Gross production of crop food commodities is expected to remain about the same as last year. Cereal and oil products have become highly competitive in the world market and many U.S. farmers have switched their acreage into feed grains. With fairly normal growing conditions, food grain and oilseed production is expected to decline about 5 percent while feed grains, supported by an 11-percent increase in corn plantings, are expected to gain 9 percent. With expanded livestock production, domestic feeding may increase feed grain use by more than a fifth over 1975.

Inventories of crop food commodities may continue to be built up but at a slower rate than in 1975. Beginning inventories were up by 19 percent from a year earlier but ending inventories are not expected to be quite so high. Stocks are expected to be built up by about 5 percent of total net utilization.

As explained earlier, most of the increase in total use of crop food commodities in 1976 is expected to be associated with increased feed use. Feed use of corn may be up by nearly a fourth and should have an impact on animal production this year and maybe even next year. Also soybean products used for feeding may be up nearly 10 percent.

Exports of crop food commodities, which account for over 90 percent of total farm food exports, are expected to decline slightly in calendar-year 1976. Wheat exports (including the wheat equivalent of flour exports) are expected to decline by around a tenth, a marked reversal from the 23-percent increase in 1975. However, greater world feed grain trade may result in an increase of about a tenth in corn exports.

THE IMPACT OF SOME DEMOGRAPHIC CHANGES ON U.S. FOOD CONSUMPTION, 1965-75 and 1975-90

by
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ABSTRACT: Much of the increase in per capita consumption of food during the past decade appears to have been related to an increased proportion of high-consuming small households and high-consuming teenagers and young adults. Decreased milk consumption can be related to a decreased proportion of children. The trend toward more one- and two-person households appears likely to continue. However, by 1990 there will be a smaller proportion of teenagers and young adults and a higher proportion of older adults, particularly women. In the coming years, these demographic changes imply less increase in per capita food consumption than in the past decade; for grains, sugars, and potatoes a decrease is indicated, and for milk a continuing decrease.

KEY WORDS: Food consumption, household size, age, demographic.

The number of Americans living alone or in two-person households has increased steadily since the early 1960's and, according to Census Bureau projections, is expected to continue increasing.[1] More than half of those living alone in 1975 were women 35 or older, reflecting in part the greater longevity of women than men. However, the largest increase in single living in the 1970's has been for those under 35. There is an increasing tendency for young people to leave their parents' homes and set up their own households. These trends, along with lower birth rates and a higher incidence of divorce, have resulted in a shrinking household size. In 1965, the average household contained 3.29 persons; in 1975, 2.94 persons; and in 1990 (the limit of Census projections) it is expected to have 2.67 persons, based on the population projections that Census considers most reasonable (II) and the most conservative of the household series (c). Small households tend to consume more food per capita than larger households.

At the same time, the lower birth rates, the greater longevity of women, and the coming of age of the post-World War II babies have produced shifts in the age and sex composition of the population.[2] Between 1965 and 1975, the most marked changes were the dramatic decrease in the proportion of preteen children, low consumers of most foods except milk, and the sharp increase in the proportion of teenagers and young adults, high consumers of most foods. Between 1975 and 1990, the major changes are expected to be a decreased proportion of teenagers and young adults and an increase in older adults, principally women, as the baby-boom young adults age and women continue outlasting men.

This article examines the past effects and present implications of probable future impacts of living arrangement shifts and changes in population mix on consumption of major categories of food. The analysis is purposely limited to the effects of demographic variables which are frequently included in demand analysis only rhetorically or in variables such as time or income which do not capture the specific effects of demographic change satisfactorily. This is not a comprehensive

[1] Bureau of the Census, *Current Population Reports*, P-20, No. 291, Feb. 1976; P-25, No. 607, Aug. 1975.

[2] Bureau of the Census, *Current Population Reports*, P-25, No. 519, Apr. 1974; P-25, No. 601, Oct. 1975.

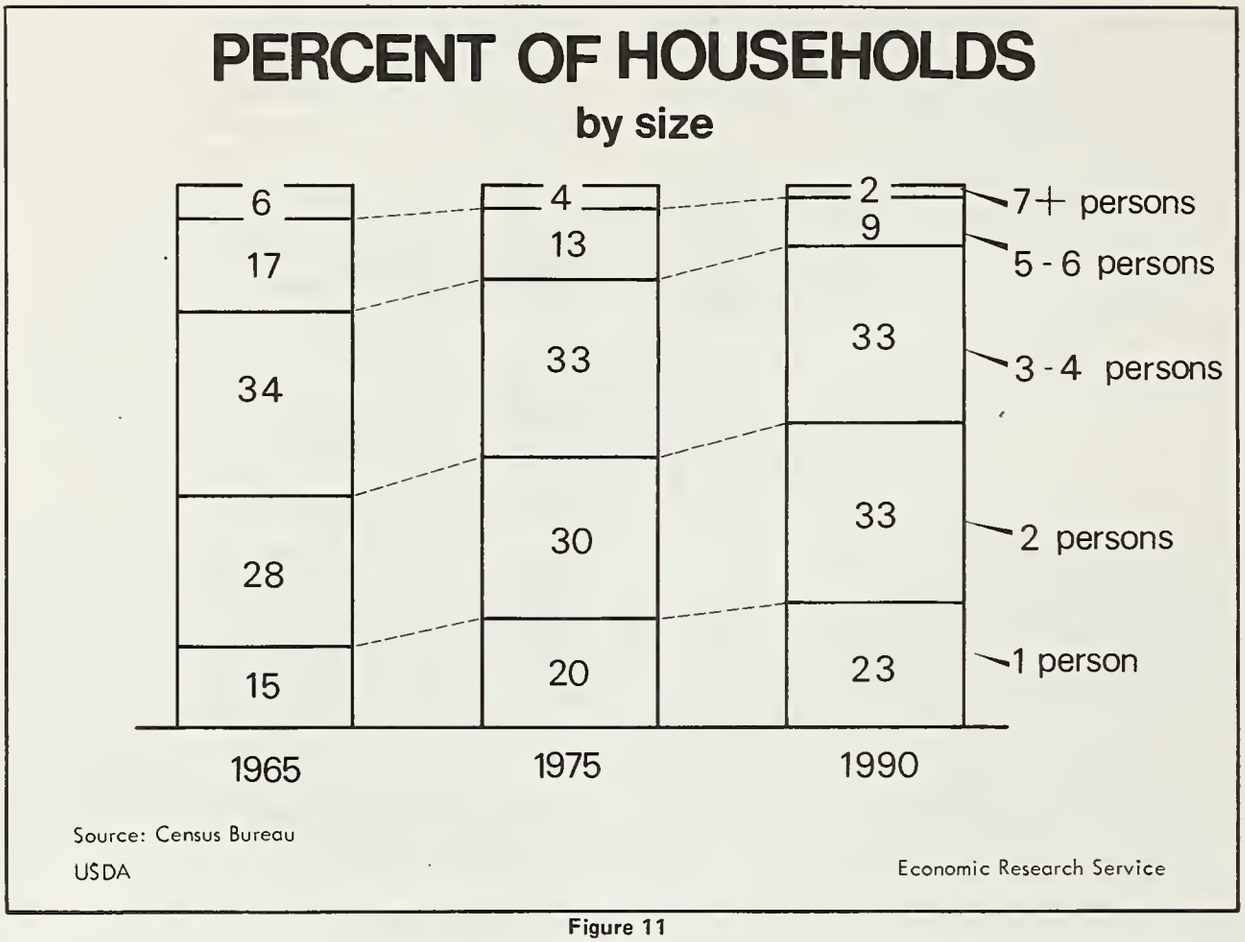

Figure 11

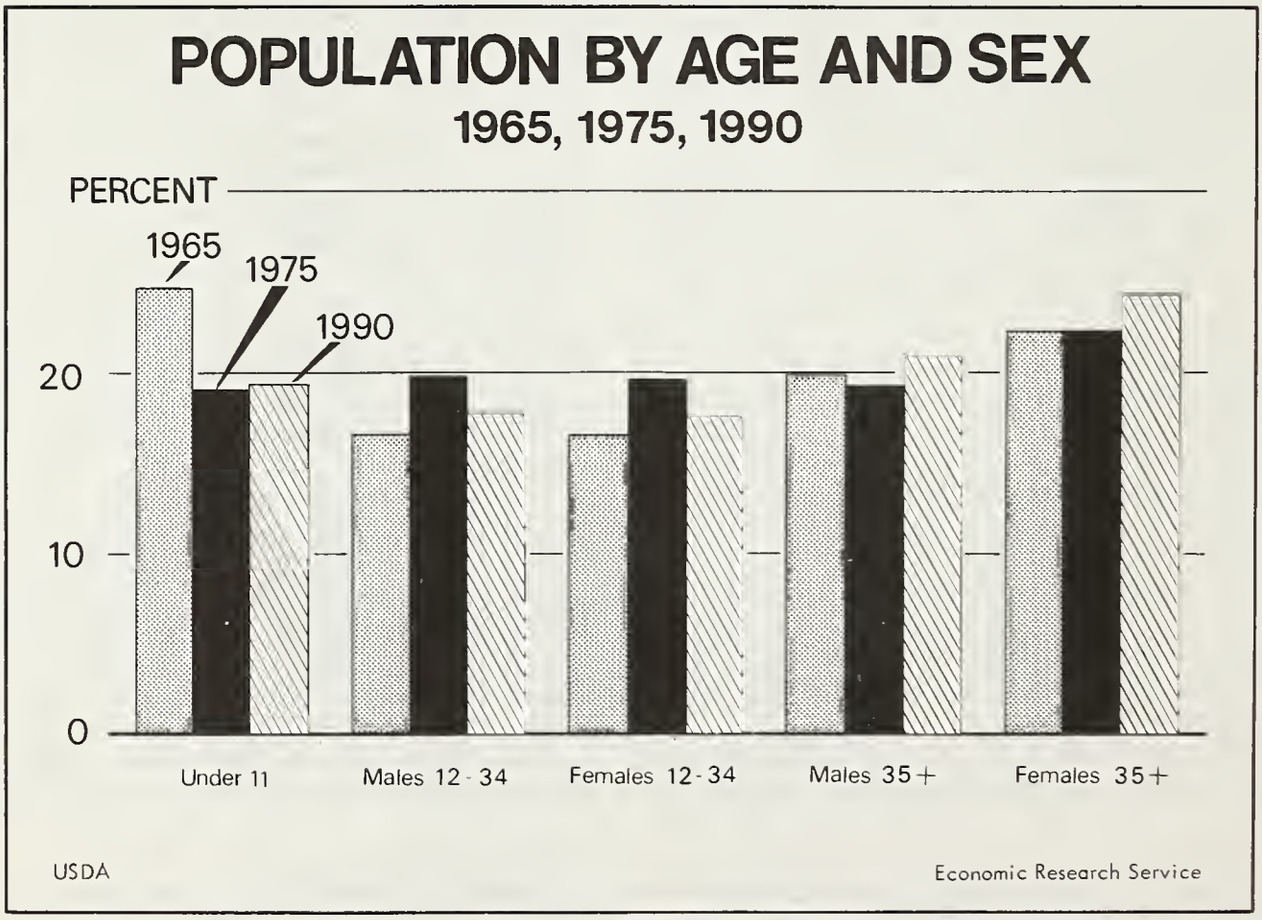

Figure 12

analysis which would need to include the effects of prices, incomes, and other variables.[3]

Methodology

Individual food intakes (at home and away from home) of persons interviewed in spring 1965 were averaged to develop indexes of consumption for 17 different age/sex groups.[4] Another set of indexes was developed from per capita averages of household consumption for seven household groups differentiated by size, also from a spring 1965 survey.[5] Each set of indexes was weighted by appropriate population distributions for 1965 and 1975 and by projected distributions for 1990. Changes in each weighted index were calculated for 1965 to 1975 and 1975 to 1990.

This method assumes that the differences in consumption between the population groups reported in 1965 are enduring patterns specific to those groups and not specific only to a particular time or generation. For most foods this is probably true. For example, it can be assumed that children will probably always consume more milk but less of most other foods than adults, that men and boys will always consume more than women and girls, and that consumption of most foods decreases as people age. However, we do not know whether the high consumption of soft drinks among teenagers and young adults in 1965 represents an age-specific relationship or a generational difference.

The method also assumes that the age and sex composition of households of different sizes will remain fairly constant, that persons living alone will continue to be mostly older women, and that two-person households will continue to be older than larger households—probably reasonable assumptions.

Dairy Products

Most of the 3-percent decrease in the per capita consumption of dairy products (in terms of nonfat solids) that occurred between 1965 and 1975 could be explained by population shifts—mainly a declining proportion of children (table 9). The drop in beverage use of milk from fewer children was partially offset by the high ice cream consumption from more teenage boys and the high cheese consumption from more older men and women. For both ice cream and cheese products, one- and two-person households were also high consumers. Cheese consumption has increased far more than the demographic changes can account for. Other factors may be the taste for foods containing cheese, such as pizza, and a greater sophistication in taste for cheeses themselves accompanied by availability of a wide variety of cheeses. Decreases in the teenage population and increases among the oldest groups are likely to lead to a continued decline in milk drinking along with less increase in ice cream and cheese consumption by 1990. Shrimper predicted a further 2-percent increase in per capita beverage milk consumption related to age and sex composition of the population by 1990 if birthrates were high and a 6-percent decrease if low.[6] The method used here indicates a 4-percent decrease related to age and sex shifts with a moderate birthrate and a somewhat offsetting 1-percent increase in milk consumption from decreasing household size.

Meat and poultry

The high consumers of red meat are men and teenage boys and the low consumers are children under 12. For poultry meat, there is less difference in consumption related to age except for the very youngest children. For red meat, two- and three-person households have the highest per capita consumption of any household size groups; for poultry, the smallest households consumed the highest per capita amounts. In the last decade, increases in the proportion of high-consuming small households had a greater effect on poultry consumption than age of population; for red meat, the reverse is true.

Changes in per capita consumptions of meat

Item	1965-1975	1975-1990
	Percent	*Percent*
Red meat		
Household size	1.5	1.5
Age and sex	3.6	-.1
Both	5.2	1.4
Poultry meat		
Household size	2.4	2.0
Age and sex	1.6	.3
Both	4.0	2.3

[3]For an analysis of the effects of changes in prices, quantities, demographic variables, and product mix on food expenditures, see Alden C. Manchester, *Relationships of Food Costs, Expenditures, and Prices, 1960-74*, AER No. 329. And for an impact of changes in income and changes in total per capita consumption of major commodities, see *Agriculture in the Third Century: Commodity Production and Utilization Projections to 1985*, compiled by Allen Smith, in process.

[4]USDA, ARS, Household Food Consumption Survey 1965-66, Report No. 11, *Food and Nutrient Intake of Individuals in the U.S., Spring 1965.*

[5]USDA, ARS, Household Food Consumption Survey, 1965-66, unpublished data.

[6]Shrimper, R.A., *Effects of Reduced Birth Rates on U.S. Milk Consumption*; Paper presented at Amer. Agr. Econ. Assoc. meetings, Aug. 1975.

Table 9--Changes in per capita food consumption: Acutal change 1965-75 and changes 1965-75 and 1975-90 related to changes in household size and age and sex of population

Item	Actual 1965-1975	Effects of demographic changes	
		1965-1975	1975-1990
	Percent	Percent	Percent
Dairy products, excluding butter (nonfat solids equivalent)	-3	-2	-2
Fresh fluid milk	-6	-4	-3
Ice cream	1	2	1
Cheese	35	8	5
Meat	6	5	1
Poultry	19	4	2
Eggs	-12	5	3
Potatoes (fresh equivalent)	3	2	-1
Vegetables	11	6	3
Fruits	4	3	2
Flour, cereal, baked goods	-3	1	-2
Dry beans, peas, nuts	9	-2	-5
Fats and oils, including butter	5	5	1
Sugars, sweeteners	3	1	-3
All food (price weighted)	4	3	1

However, in the coming years the proportion of smaller high-consuming households will increase, but the proportion of high-consuming young men will not. For poultry, the shift toward high-consuming smaller households will continue its effect. For meat, this will be somewhat offset by shifts in age composition of the population.

Eggs

Egg consumption decreased in the last decade. Population shifts alone indicated an increase and imply a continued increase. The high egg consumers in 1965 were men of all ages. But this is the group most likely to have been affected by concern about the cholesterol content of eggs. Earlier studies showed that well over half of the eggs used in households are eaten at breakfast.[7] In the last decade, the former high egg consumers may also have been decreasing the size of their breakfasts because of weight control, time pressures, and other factors.

Potatoes, Vegetables, Fruit

Potatoes are one of the few foods consumed at a low rate by single-person households, probably related to the high proportion of older women who are low potato consumers. Therefore, the shift toward smaller households has a depressing effect on potato consumption. Persons living alone consume more vegetables and fruits per capita than persons in larger households. Therefore, a continuing increase in fruit and vegetable consumption (fresh and processed combined) is indicated.

Flour, Cereal, Baked Goods

Per capita consumption of all flour and cereal products has decreased during the last decade. Population shifts indicate a slight increase and then a decrease by 1990. However, the effect varies for different products in the group.

Children and large households are the high consumers of cereals and pastas. Young men, teenage boys, and large households are the high consumers of bread. For other baked goods, young men, teenage boys, and small households are high consumers. Decreased proportions of high consumers are likely to cause a drop in both cereal and bread consumption in the coming years, but for other baked goods more high-consuming smaller households appear likely to offset the effect of fewer men and boys.

Changes in per capita consumption of cereal and bakery products

Item	1965-1975	1975-1990
	Percent	*Percent*
Cereals, pastas	-2	-1
Bread and rolls	2	-1
Other baked goods	3	0

[7]Le Bovit, C. and Clark, F., *Household Practices in the Use of Foods, Three Cities*, 1953, USDA, AIB146, 1956.

Sugars and Sweeteners

The high consumers of soft drinks in 1965 were teenagers of both sexes. It is not known whether the same people, now young adults, have cut their soft drink intake to that of young adults 10 years ago or whether their taste for soft drinks is being carried along as they age. These calculations assume that consumption decreases with age (or shifts to low-calorie beverages). If this assumption is true, decreasing proportions of young people who are also the high consumers of sugars and sweets in other forms will lead to a drop in per capita sugar consumption by 1990.

Summary

In general, demographically-related changes in consumption in the next years till 1990 will be less marked than those of the past decade. In the recent past, shifts both in age and sex composition of the population and in size of households tended to have additive effects; in the coming years, the effects of these factors will tend to move in opposite directions for many foods.

Demographic components of change in per capita food consumption (price weighted) 1965-1975 and 1975-90

Component	1965-76	1975-90	
		15 years	10 year rate
	Percent	*Percent*	*Percent*
Household size ..	1.7	1.5	1.0
Age and sex	1.4	-.6	-.4
Both	3.1	.8	.6

FOOD RETAILERS AND OPEN DATE LABELING

by
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ABSTRACT: Results of a mail survey of food retailers indicate extensive use of open dating of food products, especially for dairy and other refrigerated products. Pull dates are commonly used but presentation methods vary considerably. Few open-dated products have explanations about the meaning of the date. Large retail firms are more enthusiastic about open dating and its advantages than medium and small size retailers. But retailers generally reported little customer response to open dating. Voluntary open dating is likely to be extended to more food products by retailers.

KEY WORDS: Open dating, food products, retailer, customer, opinions, intentions.

When mandatory open date labeling of food products was first proposed in Congress, ERS was asked to study its need and feasibility among food retailers. This article summarizes the results of a mail survey of food retailers on open date practices, opinions, and intentions.[1]

Definitions

An open date is a calendar date on a food package indicating when the product should be sold or used to assure quality or freshness. The date should be presented in a manner that allows the food shopper to easily read it and understand the meaning. Four types of open dates are used and these are:

1.Pack date—the date of final processing or packaging.

2.Pull date—the last recommended day of retail sale which allows for sufficient home storage and use time. An example is "sell by" indicating the date the product should be removed from the shelf.

3.Quality assurance date—the date after which the product is not likely to be at peak quality. Examples are "for maximum enjoyment, use before (date)" or "best when used by (date)."

4.Expiration date—the last day the product should be used for assured quality. An example is "do not use after (date)."[2]

Retailer Highlights

Of 362 retailers responding to the mail survey, 249, 69 percent, carried open dated food products. Thirty of the 249 firms reported products with either open or processor code dates as open-dated products.

Almost half of the firms offering open-dated products had done so for 1 to 5 years, while slightly over a tenth had been open-dating products from 5 to 20 years. Six percent of the firms had been open-dating for less than a year. Almost one-third of the firms did not indicate how long they had such products.

Large food retail firms (sales of more than $150 million a year) most frequently indicated offering open-dated products. Of 45 large firms, more than 90 percent had open-dated products. However, as size of firm decreased, the percentage of firms with open-dated products also decreased. Only 72 percent, of the medium size

[1]Survey results on open date practices by food processors were presented in the *National Food Situation*, NFS-155, February 1976.

[2]Expiration dates for some products, particularly eggs, are actually considered "pull dates."

(sales of $10 million to $150 million a year) and 61 percent, of the small (sales of less than $10 million a year) offered open dated products.

Open-dating was most common for products in the fluid dairy, nonfluid dairy, meat (including poultry and fish), and other refrigerated goods categories. Next in importance were baked and dry goods, fats and oils, snack foods, and condiments.

Refrigerated products were open-dated most often, by more than nine out of ten firms. About three-fifths of the firms offered some open-dated dry products, half open-dated baked and canned products, and 38 percent with open-dated frozen products. Open-dated fresh products were offered by only about a third of the firms.

Retailers were asked to report the number of different types of open dates used on products sold.

The table below shows the types of dates on products sold by the 249 firms. The "pull" type date was mentioned most frequently by the firms offering only one type of date on all open-dated products. "Pack" or "pull" dates were the combination favored by the firms offering two different types of dates, while of the retailers offering three open date types, the most frequently mentioned combination was "pull," "pack," and "expiration."

Types of open dates used on food products sold by 249 retail food firms

Types of open dates on products	No. of firms	Percent
One type of date		
Pull	57	22.9
Pack	4	1.6
Quality assurance	4	1.6
Expiration	6	2.4
Total	71	28.5
Two types of dates		
Pull or pack	77	30.9
Pull or expiration	5	2.0
Pull or quality assurance	9	3.6
Pack or expiration	3	1.2
Pack or quality assurance	3	1.2
Total	97	38.9
Three types of dates		
Pull, pack or expiration	26	10.4
Pull, quality assurance or expiration	5	2.0
Pack, quality assurance or expiration	2	.8
Pack, pull or quality assurance	11	4.4
Total	44	17.6
All four types of dates	7	2.8
Firms open dating but not reporting types	30	12.1
Total	249	100.0

Retailers indicated that open date presentation methods varied considerably among products they sold. Thirty percent of the firms indicated only one or two different presentation methods were used. But, half mentioned from three to six different methods, and 6 percent or 14 firms indicated seven to nine different methods were used on open dated products.

Number of open date presentation methods reported by retailers

Numbers of methods reported per firm	Number of retailers	Percent
0	31	12.4
1	30	12.1
2	45	18.1
3	34	13.7
4	38	15.3
5	31	12.4
6	26	10.4
7	8	3.2
8	3	1.2
9	3	1.2
Total	249	100.0

Two different methods of displaying the open date presentation on food packages prevailed, according to retailers. Although the types of products and packaging used on open-dated products influences the display method, ink and both cut and ink were most frequently reported.

Lack of standardization in the use of open date types on food products makes explanations essential for customer interpretation. But only about a fifth of the retailers, indicated some open-dated products had accompanying explanations. Typically, these were products with "pull" type dates.

Product Category

Retailers reported that products were open dated in 45 specific categories. Cheese, fluid dairy, nonfluid dairy, other refrigerated goods, bacon and other prepackaged meats, and eggs were mentioned by more than half of the firms. Other product categories were mentioned by considerably fewer firms. Large firms, however, reported primarily open dates on private label brands, while small and medium firms were asked to report on all brands.

"Pull" dates were reported most often on most of the products. Other types of dates used varied widely among product categories. Pack dates appeared on at least half of the open-dated: Fresh meats, frozen meats, canned hams, poultry, and fish; and fresh fruits. Expiration dates were used on 18 percent of the yeast, 16 percent of the eggs, 14 percent of other refrig-

erated products, and 10 percent of prepackaged meats, cheese, fluid and nonfluid dairy, baked goods, butter, and preserves. Use of quality assurance dates was limited. Nineteen percent of the cereals, 11 percent of the dry milk and dry mixes, and 10 percent of the yeast were said to have them.

Despite the variation in dates used, even among products in the same category, respondents indicated that words of explanation like "sell by," "packed on," "use by," or "EXP" were given on few of the products.

In the five categories accounting for the greatest number of open-dated products, the numeric date presentation form was the one most frequently used on cheese, fluid dairy, and nonfluid dairy products. The alpha numeric form was reported most often on products such as bacon, luncheon meat, franks, and other refrigerated goods. Most of the products with open date presentations had month, day, year and the remainder were scattered among such forms as day of month, day of year, and so on.

The package label, the gable, and the top of the package were the most frequently mentioned locations for date information. "Other" locations were mentioned often for many of the products.

Storage instructions varied markedly by product categories. Over two-thirds of the retailers with products in the bacon, luncheon meat, and franks category and the other refrigerated goods category reported products had storage instructions. Forty percent of the fluid dairy products and about half of the cheese, nonfluid dairy, and other refrigerated products had home storage instructions. By comparison, only one-fifth of the baked goods and only 2 percent of the products in the cereal category had storage instructions.

Customer Reactions Reported by Retailers

One hundred forty-five firms with open dated products gave customer reactions to open dating. A little over half of the firms, indicated "little or no response," but about a fourth reported "generally good" response.

The large firms, as a rule, felt customer reactions were "generally good," but only one-quarter of the medium and small firms reported such reactions. By contrast, seven large firms or 25 percent indicated no reaction, while 62 percent of the medium and 64 percent of the small did so.

Over half of the respondents who reported open dating on both public and private brand products indicated "little or no response" from customers. The same response was reported by 68 percent of the firms with either public or private brand open-dated products..

The majority of the retailers describing customer reactions reported their open-dated products had pull dates only or were divided between pull and pack dates. More than half of each group had little reaction from their customers to open dating. Twenty-seven percent of those reporting pull dates only and 23 percent of those mentioning both types said customer reactions were "generally good."

Little customer reaction was noted regardless of the number of types of open dates or number of presentation methods. The same reaction was noted regardless of the number of products open dated or the length of time products were open dated.

Retailer Opinions

Retailers were asked for their opinions on providing date information for customer use. Two hundred forty-one firms, 155 with open-dated products and 86 without, offered specific opinions on why they favored or opposed open dating. Almost 40 percent of the firms open dating commented on benefits for customers or themselves while only 13 percent of the firms without open-dated products expressed similar comments. About 25 percent of each group gave qualified approval. While 30 percent of the firms with open dated products indicated problems or said open dating was not needed, 60 percent of the firms without open-dated products expressed the same opinions.

Reactions varied considerably by company size. Of the firms open dating, over 70 percent of the large and almost 50 percent of the medium

Customer reactions reported by retailers open dating by size of firm

Size of firms	No. of firms	Generally good		Limited		Little or no response		Negative	
	No.	No.	%	No.	%	No.	%	No.	%
Large	28	15	53.6	6	21.4	7	25.0	0	0
Medium	53	14	26.4	6	11.3	33	62.3	0	0
Small	64	10	15.6	10	15.6	41	64.1	3	4.7
All firms	145	39	26.9	22	15.2	81	55.9	3	2.0

mentioned benefits to customers or to the firm. But only 20 percent of the small had the same opinions, and these firms, almost 50 percent stressed problems with open dating or felt it was not needed. Firms not open dating were almost entirely small or medium in size. Almost 75 percent of the small and almost 40 percent of the medium indicated problems or that open dating was not needed.

When the retailers' opinions are looked at in more detail, large firms were particularly enthusiastic about open dating as an instore aid for quality control, stock rotation, and employee training. The technical or cost problems associated with open dating were of particular importance to the small size retailers.

Retailers who offered only public brand open-dated products (31 firms) were more likely to say open dating was unnecessary or to give it qualified approval. Those who described only private brand open dating (21 firms) mentioned benefits for the retailer and the customer most often. Among firms with both public and private brand open dated products (79 firms), qualified approval was the opinion most frequently expressed.

Benefits to the firm, such as easier stock rotation and better quality control, were mentioned by retailers who open dated products in each of the nine product categories. Benefits to the customer, however, were given less frequently, ranging between 15 and 23 percent of the retailers mentioning the various products. Retailer opinions relating to consumer benefits were primarily given for products in the fresh and frozen food category. About 20 percent expressed opinions not directly related to firm or consumer benefits. These include: good idea for perishable/semiperishable products; beneficial if understood; will provide if government and/or competition require it; and not unless temperature given.

Problems with the open dating system were mentioned most frequently by firms open dating products in the fluid, nonfluid dairy, meat, fish, and poultry, refrigerated goods, and snack product categories. About 20 percent said open dating caused selective buying; it was costly to implement to the retailer, costs were passed on to consumer; and/or technical difficulties encountered required research and study.

Future Plans

Fifty retailers said they had plans to begin or to change their open dating programs within a year after the survey.

Seven companies indicated that they planned to begin open dating products and the other 43 expected to change their programs, 19 of whom described changes planned. Fifteen large, twenty-one medium, and eleven small firms had future plans. These represent 40 percent, 21 percent, and 6 percent of the large, medium, and small firms, respectively. The categories most frequently mentioned were fresh meat, fluid dairy, cheese, and baked goods. However, only twenty-seven firms mentioned specific product categories. Most categories had only one or two observations. Retailers mentioned using "pull" dates in the future.

Retailer reactions about open dating by size of company

Size of firm	Firms	For consumer		For firms		Qualified		Suggestions		Problems		Not needed	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
	Firms with open dated products												
Large	25	8	32.0	10	40.0	4	16.0	0	0	2	8.0	1	4.0
Medium	53	12	22.6	13	24.5	15	28.3	3	5.7	4	7.6	6	11.3
Small	77	4	5.2	12	15.6	19	24.7	6	7.8	20	26.0	16	20.7
All sizes	155	24	15.5	35	22.6	38	24.5	9	5.8	26	16.8	23	14.8
	Firms without open dated products												
Large	2	1	50.0	0	0	0	0	0	0	1	50.0	0	0
Medium	31	1	3.2	4	12.9	13	41.9	1	3.2	7	22.6	5	16.1
Small	53	1	1.9	4	7.5	6	11.3	3	5.7	15	28.3	24	45.3
All sizes	86	3	3.5	8	9.3	19	22.1	4	4.7	23	26.7	29	33.7

NOTES

NOTES

Table 10--Wholesale food price indexes and Wholesale Price Index, selected periods 1/
(1967=100)

Year and month	Farm products			Processed foods and feeds														
				Meats														
	Eggs	Fresh and dried fruits and vegetables 2/	Total 3/	Beef and veal	Pork	Total	Poultry	Fish	Dairy	Processed fruits and vegetables 2/	Vegetable oil end products	Cereal and bakery products	Sugar and confectionary	Beverages 4/	Total 5/	All food 6/	Industrial commodities 7/	All commodities
1960	122.4	99.0	97.2	95.1	86.6	91.8	116.2	81.4	86.1	92.8	88.7	88.1	90.1	92.8	89.5	92.1	95.3	94.9
1970	126.8	111.6	111.0	114.5	111.7	115.0	113.3	125.1	111.2	110.4	111.8	107.6	115.9	112.9	112.0	113.5	110.0	110.4
1971	100.8	120.1	112.9	124.1	99.5	114.1	112.4	137.0	115.4	114.5	121.1	111.4	119.2	115.8	114.3	115.5	114.0	113.9
1972	103.7	127.6	125.0	133.4	122.1	128.5	115.8	159.5	118.6	119.7	121.2	114.7	121.6	118.0	120.8	121.8	117.9	119.1
1973	165.7	168.1	176.3	163.6	160.5	163.4	177.2	190.8	131.1	129.6	143.6	134.4	132.3	121.7	148.1	146.9	125.9	134.7
1974	160.6	192.3	187.7	158.6	162.3	159.6	157.3	204.6	146.4	154.6	224.8	171.2	258.9	140.7	170.9	174.4	153.8	160.1
1975	159.8	183.7	186.7	176.3	214.7	188.7	184.1	218.7	155.8	169.8	211.5	178.0	254.3	162.4	182.6	186.0	171.5	174.9
January	168.7	174.9	179.7	148.2	183.7	161.9	169.7	193.1	148.3	171.2	247.2	182.3	358.2	162.6	186.4	188.4	167.5	171.8
February	162.4	174.6	174.6	142.7	181.8	159.0	170.5	206.5	148.5	170.9	239.5	183.6	347.3	162.2	182.6	185.6	168.4	171.3
March	166.3	163.8	171.1	143.7	180.4	159.0	164.6	203.2	148.6	169.5	231.1	181.9	303.0	162.2	177.3	180.4	168.9	170.4
April	140.0	183.4	177.7	167.7	181.9	171.6	165.9	208.3	148.9	170.8	223.1	179.1	280.1	161.7	179.4	181.9	169.7	172.1
May	145.5	183.1	184.5	189.4	201.7	189.8	175.1	216.8	149.6	171.0	215.5	176.2	239.6	161.0	179.0	182.4	170.3	173.2
June	137.9	206.7	186.2	202.3	206.5	199.3	186.5	217.5	150.5	170.9	206.7	174.4	217.8	160.4	179.7	184.3	170.7	173.7
July	139.7	208.6	193.7	201.0	231.4	208.0	208.9	225.2	153.2	169.4	203.8	176.7	228.4	159.4	184.6	189.8	171.2	175.7
August	156.7	179.6	193.2	186.5	241.0	203.4	195.3	224.9	156.3	168.6	207.9	175.8	243.2	161.6	186.3	189.0	172.2	176.7
September	174.4	182.6	197.1	192.7	250.0	209.3	196.5	229.5	160.8	168.4	197.7	177.0	219.4	162.5	186.1	189.7	173.1	177.7
October	158.4	183.3	197.3	183.7	255.5	209.1	202.6	231.0	165.6	169.3	191.1	177.6	208.3	165.1	186.2	189.1	174.7	178.9
November	175.8	179.0	191.7	174.7	239.0	198.3	195.8	228.1	168.1	169.0	190.4	177.0	207.6	165.1	182.6	186.0	175.4	178.2
December	192.3	190.3	193.8	183.0	223.9	196.0	177.7	240.7	171.3	168.5	184.0	174 6	199.1	165.4	181.0	185.2	176.1	178.7
1976																		
January	182.0	194.8	192.8	173.1	224.6	190.4	164.5	253.1	169.7	167.6	174.1	174.7	202.6	165.1	179.4	183.2	177.3	179.3
February	177.0	192.6	191.0	162.0	213.5	180.3	170.1	256.2	163.4	166.7	170.9	175.1	200.4	167.0	176.4	179.7	178.0	179.3
March	159.2	184.5	187.2	150.0	202.4	171.7	178.8	261.3	166.7	166.5	170.2	174.5	207.5	167.0	175.8	178.2	178.9	179.6
Seasonally adjusted																		
1975																		
January	149.6	173.5	177.9	146.6	177.3	160.5	178.4	189.3	147.7	171.4	249.7	---	365.1	---	185.3	187.4	---	---
February	164.2	161.4	170.2	137.1	173.9	153.3	174.3	201.9	148.1	171.6	239.0	---	348.7	---	180.3	184.9	---	---
March	160.4	160.0	168.1	138.1	183.1	157.6	156.2	198.0	146.8	170.9	230.0	---	303.0	---	175.7	177.6	---	---
April	146.4	172.4	179.3	166.9	196.0	174.7	171.7	206.9	148.2	171.0	226.5	---	282.4	---	182.0	182.3	---	---
May	170.7	167.5	184.5	187.5	214.3	193.5	174.1	220.3	149.9	170.7	218.1	---	238.9	---	180.3	183.1	---	---
June	154.6	190.4	181.7	197.0	210.9	198.9	186.3	228.2	152.0	170.2	209.2	---	214.2	---	178.1	184.5	---	---
July	154.4	205.5	193.7	193.1	225.6	198.5	189.9	228.4	153.5	169.7	207.1	---	227.3	---	183.9	188.3	---	---
August	160.6	194.8	190.7	185.2	230.2	196.1	189.6	229.7	158.0	168.3	205.8	---	239.6	---	184.5	187.5	---	---
September	160.3	208.5	198.9	194.8	246.8	208.9	181.1	231.6	161.6	168.7	192.5	---	217.7	---	186.3	189.7	---	---
October	159.0	200.5	203.2	194.0	253.5	214.5	207.8	233.3	165.3	169.6	186.3	---	207.9	---	187.7	192.4	---	---
November	171.2	178.5	198.0	191.6	249.7	210.1	203.5	223.2	167.9	167.5	188.1	---	209.1	---	186.5	189.0	---	---
December	166.9	200.3	196.4	189.6	226.8	202.1	199.0	236.4	170.8	168.0	187.2	---	201.5	---	181.0	185.9	---	---
1976																		
January	161.3	193.3	190.9	171.0	216.4	188.5	173.3	248.4	169.0	167.8	175.9	---	206.5	---	178.3	182.1	---	---
February	179.0	184.0	186.2	155.6	204.3	173.4	174.5	250.7	162.9	167.4	170.6	---	201.2	---	174.1	179.2	---	---
March	152.2	183.2	185.9	144.1	205.3	169.6	169.3	254.7	164.9	167.5	170.9	---	209.6	---	175.9	175.4	---	---

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices and Expenditures, Agricultural Economic Report No. 138, table 106. 2/ Includes potatoes. 3/ In addition to items listed separately, includes grains, livestock, live poultry, plant and animal fibers, milk, hay, hayseeds, oilseeds, and other farm products such as coffee beans, cocoa beans and tobacco. 4/ Includes alcoholic beverages. 5/ Includes animal fats and oils, crude and refined vegetable oils, manufactured animal feed, and miscellaneous processed foods in addition to items listed separately. 6/ All food includes all processed foods (omitting soft drinks, alcoholic beverages and manufactured animal feeds) plus eggs and fresh and dried fruits and vegetables from the farm products group. 7/ Prior to 1967, includes manufactured animal feeds, soft drinks, and alcoholic beverages. 8/ Meats, poultry, and fish and all food are computed by ERS.

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Table 11--Retail food price indexes and Consumer Price Index, selected periods 1/
(1967=100)

Year and Month	Food at home: Meats: Beef and veal	Meats: Pork	Meats: Total 2/	Poultry	Fish	Eggs	Dairy products 3/	Fats and oils 4/	Fruits and vegetables: Fresh	Fruits and vegetables: Processed	Fruits and vegetables: Total	Cereal and bakery products	Sugar and sweets	Beverages	Total	Food away from home	All food	Consumer Price Index less food	Consumer Price Index 5/
1960	92.1	81.7	87.2	106.9	85.0	113.2	88.4	---	84.6	92.9	88.3	87.1	90.1	91.5	89.6	81.4	88.0	88.8	88.7
1970	119.5	115.9	117.6	108.4	118.0	125.6	111.8	105.8	116.3	109.2	113.4	108.9	115.1	117.4	113.7	119.9	114.9	116.7	116.3
1971	124.9	105.0	116.7	109.0	130.2	108.4	115.3	115.4	121.0	116.2	119.1	113.9	119.3	121.6	116.4	126.1	118.4	122.1	121.3
1972	136.6	121.6	129.2	110.4	141.9	107.7	117.1	116.6	128.0	120.5	125.0	114.7	120.9	121.3	121.6	131.1	123.5	125.8	125.3
1973	163.8	161.7	161.1	154.8	162.8	160.2	127.9	126.4	150.8	130.2	142.5	127.7	128.3	130.2	141.4	141.4	141.4	130.7	133.1
1974	168.5	161.0	164.1	146.9	187.7	160.8	151.9	179.4	162.6	170.6	165.8	166.1	195.2	155.6	162.4	159.4	161.7	143.7	147.7
1975	170.0	196.9	177.9	162.4	203.3	157.8	156.6	198.6	166.1	178.3	171.0	184.8	246.2	178.9	175.8	174.3	175.4	157.1	161.2
January	158.5	170.0	161.9	152.8	195.7	172.6	155.2	214.7	153.6	178.3	163.5	185.3	281.0	175.3	171.4	169.0	170.9	151.8	156.1
February	156.6	169.6	160.9	152.0	197.2	172.1	155.6	214.9	159.2	177.9	166.7	187.3	273.9	177.0	172.0	170.5	171.6	153.0	157.2
March	153.3	170.5	159.7	151.8	197.1	153.5	155.4	213.1	159.9	178.7	167.4	189.1	269.5	177.8	171.4	171.3	171.3	153.9	157.8
April	154.6	170.0	160.2	148.9	197.3	158.2	154.8	209.7	160.9	178.2	167.8	188.9	255.7	178.0	171.0	172.2	171.2	154.9	158.6
May	166.4	175.6	167.9	149.8	199.1	144.6	153.6	203.0	164.7	175.4	169.0	187.0	246.0	175.3	171.6	172.8	171.8	155.6	159.3
June	176.6	187.9	177.8	157.7	200.4	137.2	153.3	195.8	179.0	175.0	177.4	185.2	236.8	174.9	174.9	173.1	174.4	156.6	160.6
July	186.4	204.9	188.5	172.8	202.9	144.6	153.4	191.7	198.4	174.7	188.8	184.6	228.9	174.1	179.9	174.2	178.6	157.6	162.3
August	182.5	214.3	190.4	174.3	205.1	151.1	154.3	189.3	180.0	174.8	177.9	182.6	236.0	175.1	179.0	175.3	178.1	158.3	162.8
September	176.7	222.4	190.5	177.2	208.1	163.9	156.3	189.7	161.6	176.1	167.4	181.6	238.6	177.9	178.2	176.5	177.8	159.5	163.6
October	178.3	230.9	194.3	171.6	210.6	159.3	159.4	188.8	156.1	179.6	165.5	181.6	235.0	183.7	179.3	178.0	179.0	160.4	164.6
November	175.3	227.5	192.4	171.1	211.7	160.1	162.8	187.1	158.2	184.3	168.7	181.9	228.0	188.1	180.0	179.2	179.8	161.5	165.6
December	174.7	219.6	189.8	168.5	214.1	176.4	165.5	185.9	162.1	187.0	172.1	182.2	225.7	190.1	180.9	180.0	180.7	162.1	166.3
1976																			
January	174.9	210.1	186.8	164.5	216.1	182.8	168.2	182.4	163.8	187.3	173.3	182.0	224.5	191.1	180.8	180.9	180.8	162.6	166.7
February	168.3	208.5	182.8	159.8	219.2	184.9	168.5	177.4	164.4	186.4	173.2	181.1	224.0	191.7	179.6	181.9	180.0	163.4	167.1
March	164.7	204.3	179.6	157.7	219.3	160.4	167.9	175.0	165.2	186.1	173.6	180.6	222.4	193.0	177.7	182.8	178.7	164.2	167.5
Seasonally adjusted																			
1975	170.0	196.7	177.8	162.3	203.3	157.7	156.6	198.6	166.1	178.3	171.0	184.8	246.1	178.9	175.8	174.3	175.5	---	161.3
January	162.6	169.5	164.1	156.0	195.8	158.0	154.8	213.7	160.8	178.1	167.2	185.3	280.3	175.9	171.9	169.0	171.3	---	156.6
February	157.0	167.2	160.5	154.4	196.7	158.6	153.9	214.2	162.3	177.1	167.8	185.9	270.5	177.3	171.1	170.9	171.1	---	157.3
March	149.7	168.8	156.8	151.9	196.5	151.9	153.8	211.0	160.4	177.5	167.2	187.0	265.6	178.2	170.3	171.8	170.6	---	157.9
April	153.7	174.2	160.3	149.5	196.8	161.0	153.6	208.4	158.8	176.2	166.4	187.2	253.8	177.9	170.6	172.4	171.0	---	158.7
May	167.6	185.6	172.1	154.6	198.4	157.6	153.0	203.6	159.4	174.9	165.7	186.0	246.9	175.4	172.3	173.1	172.5	---	159.5
June	178.2	194.2	182.1	159.4	200.5	156.9	153.8	199.3	163.4	175.1	168.7	186.1	239.1	174.9	174.9	173.4	174.6	---	160.6
July	183.9	205.6	185.7	168.1	203.3	160.3	155.5	196.8	178.9	175.7	179.1	186.3	231.0	173.9	178.6	174.5	177.8	---	162.2
August	177.4	209.1	186.9	168.6	206.8	155.5	156.9	192.6	169.8	176.6	172.9	185.4	239.9	174.9	178.1	175.3	177,5	---	162.8
September	172.3	214.6	186.7	167.3	209.5	155.0	158.2	190.7	170.1	177.1	172.3	183.8	240.5	177.4	178.4	176.4	178.0	---	163.5
October	178.6	224.3	192.1	169.8	211.5	155.8	160.1	186.7	168.2	181.0	173.1	182.3	236.1	182.9	180.2	177.5	179.6	---	164.5
November	178.7	225.2	193.3	172.7	210.8	159.2	162.3	184.0	168.0	184.4	174.3	181.7	228.0	188.1	181.2	178.6	180.6	---	165.5
December	180.8	222.5	193.7	175.4	213.2	163.5	164.1	182.9	173.8	186.7	177.8	180.6	222.4	190.8	182.1	179.5	181.6	---	166.4
1976																			
January	179.4	209.5	189.3	168.0	---	167.2	167.7	181.5	171.5	187.1	177.2	182.0	---	---	181.4	180.9	181.2	---	167.1
February	168.8	205.4	182.4	162.2	---	170.4	166.7	176.9	167.6	185.7	174.2	179.7	---	---	178.6	182.4	179.4	---	167.3
March	160.8	202.3	176.3	157.9	---	158.7	166.2	173.3	165.7	184.8	173.4	178.6	---	---	176.5	183.4	177.9	---	167.6

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices, and Expenditures, Agricultural Economics Report No. 138, July 1968. 2/ Beef, veal, lamb and mutton, pork, and processed meat. 3/ Includes butter. 4/ Excludes butter. 5/ Seasonally adjusted series derived by ERS.

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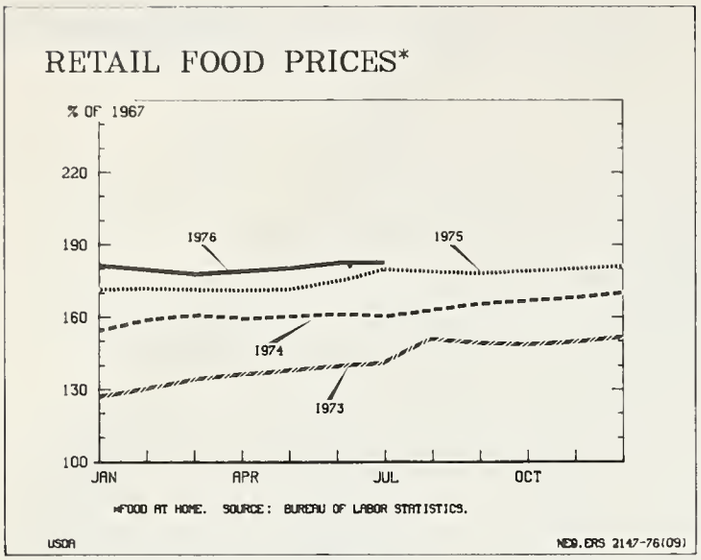


Figure 1

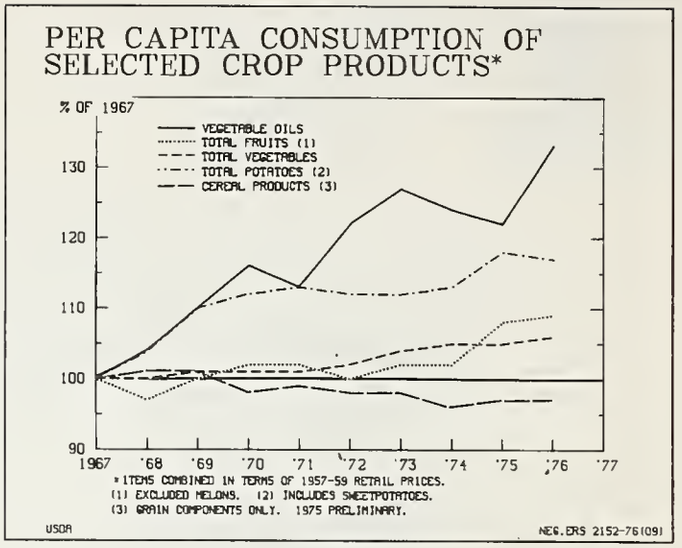


Figure 2

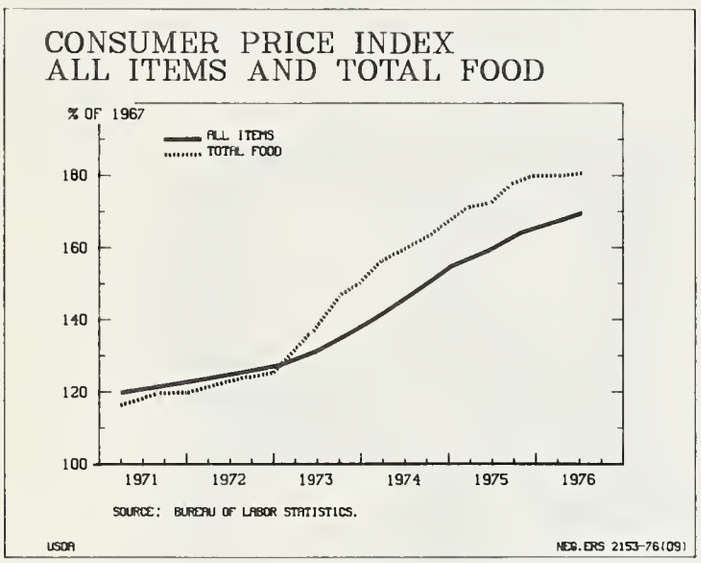
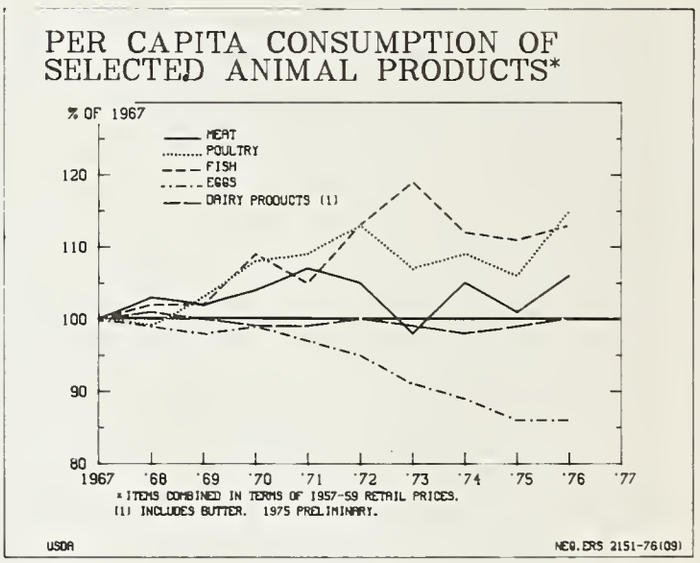


Figure 3



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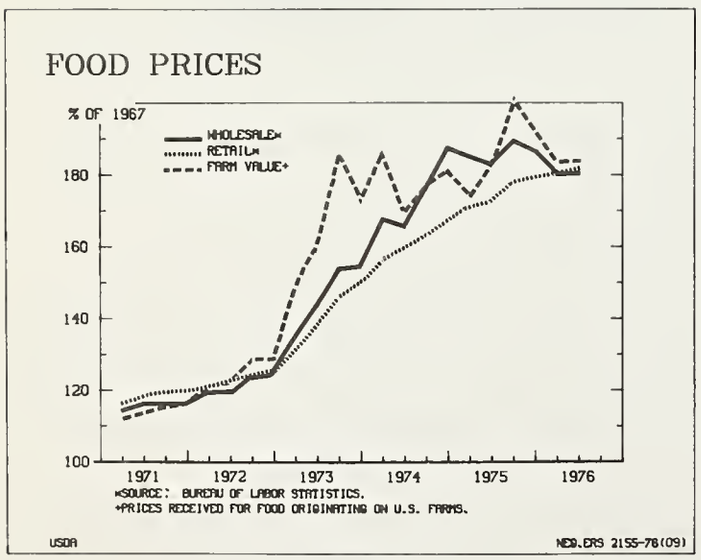

Figure 5

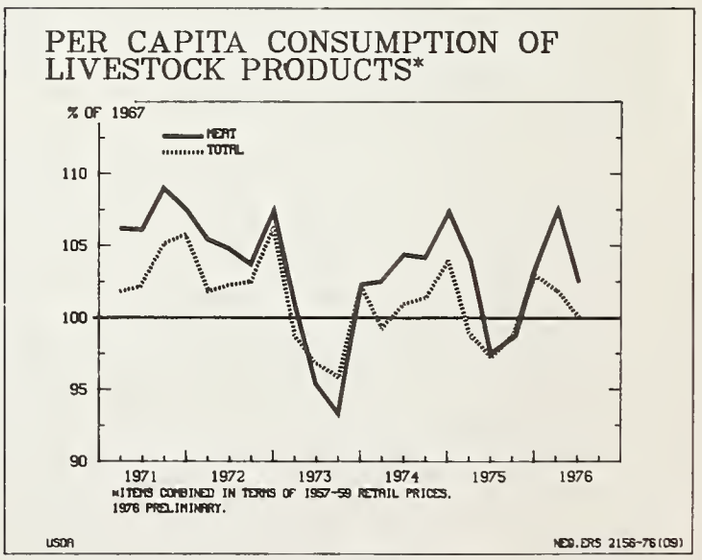

Figure 6

NATIONAL FOOD SITUATION

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SUMMARY

Large Supplies Dampen Food Price Rise

Retail food prices have edged upward in recent months, but increases have been small compared to the sharp jumps of mid-1975. Monthly increases during April-June offset small declines last winter, leaving the second quarter average the same as the average for the 2 preceding quarters at a level about 4½ percent above a year earlier.

Consumer food prices in July increased 0.7 percent from June, a little more than the usual increase for the month, compared with the 2½ percent jump a year earlier. Consequently, July prices averaged only 2 percent above the same month last year.

Strengthening demand, higher marketing costs, and relatively tight supplies for a few products such as coffee and some fishery items likely will continue to exert upward pressure on retail food prices. But further expansion in the output of meat and poultry and ample supplies of most crop foods are expected to limit price increases if U.S. and world harvests turn out about as now expected.

Retail food prices for the July-September quarter probably will average 1 to 2 percent above the spring quarter and perhaps 2 to 3 percent above a year earlier. If August crop prospects are realized and livestock output expands as expected, fourth quarter food prices may be little changed from the third quarter and remain 2 to 3 percent above the last quarter of 1975. With the year-to-year price differences narrowing from around 5 percent earlier this year, the average for the entire year likely will be 3 to 4 percent above 1975, the smallest annual increase since 1971.

Larger domestic food supplies will tend to dampen food price rises well into 1977. But strong domestic and foreign demand, rising marketing costs, and seasonal price increases for several food categories likely will result in further moderate advances. Accordingly, retail food prices during the first half of 1977 could average up to 3 or 4 percent above a year earlier. If output is larger and demand increases are less than now anticipated, food prices may average about steady at this fall's level and around 2 percent above a year earlier.

Conversely, smaller supplies and stronger demand pressures would result in a more rapid rise in food prices with the average for the first half as much as 5 percent above a year earlier.

Per capita food consumption for all of 1976 will be up—possibly 2½ percent from last year—and may exceed the record high of 1972 by a small margin. While this year's increase in food use mainly reflects more ample supplies, it also is due to stronger demand associated with improved domestic economic conditions. Most of the increase will be associated with a nearly 5-percent rise for red meats and a 9-percent increase for poultry. Fish consumption may be about 2 percent larger with dairy product use up slightly and egg consumption about equal to last year. Among crop food categories, sugar use may rise about 5 percent from last year's depressed level and vegetable oil consumption may be up about a tenth. Per capita use of fruits and vegetables may be slightly higher. These increases should more than offset declines indicated for fresh potatoes and coffee.

Rising consumer incomes, generally plentiful food supplies, and continued population growth boosted food spending during the first 6 months of 1976 to a $196 billion annual rate—about 8 percent above a year ago. However, with price rises moderating, the rate of increase in food spending has slowed in comparison with the previous 3 years. Increases in expenditures for food away from home continued to outpace expenditures for food used at home compared to the same period a year ago.

Disposable personal income rose at a faster pace than food expenditures from the first to the second quarter, causing the percentage of disposable personal income allocated to food expenditures to decline for the fourth consecutive quarter. Since disposable personal income should continue to rise more rapidly than personal consumption expenditures for food, this ratio for all of 1976 will average less than the 17.1 percent of 1975.

Total production of crop food commodities in 1976 is expected to about match the record output of a year ago. With larger beginning inventories, prospects for large harvests again this year, and strong foreign and domestic demand, combined use for food, feed, and export is expected to increase by about 8 percent over 1975. Much of the gain will reflect a 20-percent recovery in feed use. The volume of exports of crop food commodities may total 4 to 5 percent above calendar year 1975, led by corn and soybeans. Civilian food use of crop commodities is estimated to be 3 to 4 percent larger, led by vegetable oils, sugar, and fruits and vegetables.

Utilization of livestock food products in 1976 is expected to increase by 4 to 5 percent from 1975. Gross output could rise to a new record high, about 5 percent above last year, with sizable gains for fed beef, poultry, hogs, and dairy products.

FOOD PRICES AND CONSUMPTION

Retail food prices have edged higher in recent months following small declines early in the year. But increases have been moderate compared to the sharp jumps of mid-1975 and the rapid increases which characterized most of the preceding 3 years.

Consumer food prices in July increased 0.7 percent from June, a little more than the usual advance for the month but much less than the 2½ percent jump in July 1975. Prices for food at home and for restaurant meals and snacks rose at the same pace. Meat and poultry prices rose slightly, but less than their usual seasonal increases. Fresh fruit prices were up a seasonal 2 percent while fresh vegetables and processed fruit and vegetables were fractionally lower. Coffee prices continued their steep climb but cereal and bakery products, fats and oils, and sugar and sweets registered small declines.

Average food prices for the April-June quarter remained essentially unchanged from the preceding 2 quarters, but about 4½ percent above a year earlier. Although small increases were recorded during each of the spring months, they only counterbalanced the declines of last winter. Grocery store prices averaged slightly below the previous quarter and were less than 4 percent

Changes in retail food prices, second quarter, 1976

Item	From first quarter 1976	From second quarter 1975
	Percent	*Percent*
Meat	-1.9	6.5
Poultry	-1.7	3.9
Fish	2.9	12.9
Dairy products	-.4	8.9
Eggs	-11.6	6.0
Fats and oils	-4.2	-15.7
Fruits and vegetables	2.3	3.5
Sugar and sweets	-1.6	-10.6
Cereal and bakery products	-.2	-3.3
Beverages	5.9	15.4
Other preparations	1.2	3.3
Food at home	-.3	3.7
Food away from home	1.5	6.9
All food	.1	4.3

Table 1--Consumer, wholesale, and farm price indexes, 1975-76
(1967=100)

Item	1975				1976		
	II	III	IV	Year	I	II	
						Index	Percent change from 1975 II
							Pct.
Retail prices: 1/							
All goods and services (CPI)	159.5	169.9	165.5	161.2	167.1	169.2	6.1
All items less food	155.7	158.5	161.3	157.1	163.4	166.0	6.6
All food	172.5	178.2	179.8	175.4	179.8	180.0	4.3
Food at home	172.5	179.0	180.1	175.8	179.4	178.9	3.7
Food away from home	172.7	175.3	179.1	174.3	181.9	184.7	6.9
Wholesale prices: 1/							
All commodities	173.0	176.7	178.6	174.9	179.4	182.1	5.1
Industrial	170.2	172.2	175.4	171.5	178.1	180.6	6.1
Farm products	182.8	194.7	194.3	186.7	190.3	194.0	6.1
Processed food	183.5	190.5	187.4	187.1	179.7	181.6	-1.0
All food 2/	182.9	189.5	186.8	186.0	180.4	181.2	- .9
Prices received by farmers: 3/	182	195	188	186	186	192	5.5
Crops	199	208	193	201	193	201	1.0
Livestock and products	168	183	185	172	181	185	10.1
Market basket of U.S. farm food: 4/							
Retail cost	170.1	177.6	177.9	173.6	176.7	175.3	3.1
Farm-retail spread	162.0	163.4	168.8	165.3	172.5	170.4	5.2
Farm value	182.8	200.0	192.4	187.0	183.4	183.2	.2

1/ Department of Labor, Bureau of Labor Statistics.
2/ All food includes all processed foods plus eggs and fresh and dried fruits and vegetables from the farm products group.
3/ Statistical Reporting Service.
4/ Economic Research Service.

above a year earlier. Meanwhile, prices for restaurant meals and snacks continued to climb at about the same pace as nonfood prices, averaging about 7 percent above the second quarter of 1975.

Price declines during the second quarter were mostly associated with animal products. Although fish prices continued to rise and dairy prices fell much less than usual during the spring, declines for red meats, poultry, and eggs brought average prices down slightly from the winter quarter. However, since prices for all animal products rose sharply last year, the second quarter average was still 7½ percent above a year earlier.

Retail prices for crop foods rose seasonally during the second quarter, but averaged about the same as a year earlier. The quarterly rise was due mainly to sharp increases for coffee and seasonal advances for fresh produce. Further declines for fats and oils and for sugar and sweets left prices for these products well below the second quarter of 1975.

The farm value of U.S.-produced food in the second quarter averaged practically the same as the previous quarter and a year earlier. While farm-retail spreads slipped slightly from the previous quarter, they remained about 5 percent above a year earlier. The second quarter decline in spreads reflected a 9-percent drop for red meats as well as a sharp decline for eggs and for fats and oils. Spreads for fresh fruits and vegetables rose seasonally while those for dairy products and poultry were moderately higher.

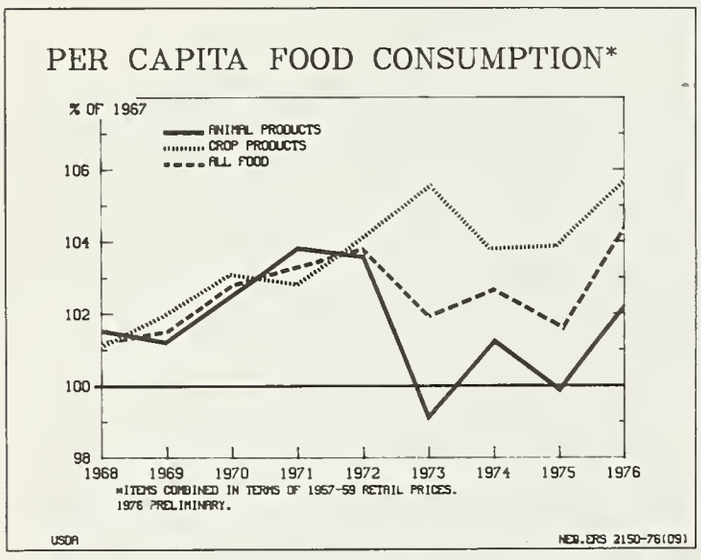

Figure 7

Per capita consumption of livestock products continued to rebound from depressed year-earlier levels during the second quarter. Although meat consumption was down seasonally from the winter, it remained 3½ percent above the second quarter of last year. Poultry consumption was up almost a tenth from the previous quarter and from a year earlier. Dairy product use rose slightly this spring relative to last year, while egg consumption was unchanged.

Per capita food consumption indexes, seasonally adjusted

Period		Total livestock	Meat
		1967=100	
1974	I	101.1	102.3
	II	102.1	106.5
	III	101.1	104.1
	IV	101.3	105.5
1975	I	100.8	104.1
	II	108.1	100.1
	III	98.1	98.6
	IV	100.3	101.7
1976	I	104.0	107.0
	II[1]	101.5	104.1

[1] Preliminary.

Larger Supplies To Limit Food Price Advance

Strengthening consumer demand, higher costs for marketing services, and relatively tight supplies for a few products such as coffee and some fishery and dairy items likely will continue to exert upward pressure on retail food prices. But further expansion in the output of meat and poultry products and ample supplies of most other foods are expected to hold prices relatively steady through the remainder of 1976 in the absence of severe weather problems prior to this fall's harvest.

Retail food prices for the July-September quarter probably will average only 1 to 2 percent above the spring quarter and 2 to 3 percent above a year earlier. Egg prices will be up sharply, with moderate increases likely for poultry and dairy products. Red meat prices may be relatively stable on the average with small increases for beef about offset by declines for pork. A further rise in coffee prices along with seasonal increases for fresh fruits will contribute most to the increase expected for crop foods. Seasonal declines for potatoes and other fresh vegetables will be partially offsetting with little change likely for other food categories. Prices for away-from-home eating are likely to continue to rise at about the same 1½ percent quarterly pace.

If early August crop prospects are realized and if livestock and poultry output expands as expected, fourth quarter food prices may be little changed from the third quarter and remain about 2 percent above a year earlier. Lower prices for pork and poultry may about offset increases for beef, dairy products, eggs, and fish. In a similar manner, seasonal price declines for potatoes and fresh

Table 2--Per capita food consumption indexes, 1967-76 1/
(1967=100)

Selected years	Meat	Poultry	Fish	Eggs	Dairy products 2/	Fats and oils			Fruits 3/		
						Animal 2/	Vegetable	Total	Fresh	Processed	Total
1967	100	100	100	100	100	100	100	100	100	100	100
1968	103	99	102	99	101	103	104	103	98	97	97
1969	102	103	102	98	100	95	110	105	98	102	100
1970	104	108	109	99	99	90	116	107	101	103	102
1971	107	109	105	97	99	90	113	105	98	106	102
1972	105	113	113	95	100	84	122	109	94	105	100
1973	98	107	119	91	99	78	127	110	93	110	102
1974	105	109	112	89	98	76	124	107	98	106	102
1975	101	106	111	86	99	76	122	106	103	112	108
1976 6/	106	115	113	86	100	70	133	110	103	114	109

	Vegetables 4/			Potatoes and sweetpotatoes		Cereal products	Sugar and sweeteners	Coffee, tea, and cocoa	All food		
	Fresh	Processed	Total	Fresh	Processed				Animal products	Crops 5/	Total
1967	100	100	100	100	100	100	100	100	100.0	100.0	100.0
1968	99	104	100	101	106	101	103	100	101.5	101.1	101.2
1969	99	104	101	94	118	101	104	97	101.2	102.0	101.5
1970	100	104	101	91	121	98	106	94	102.5	103.1	102.8
1971	99	105	101	87	124	99	106	92	103.8	102.8	103.3
1972	99	108	102	89	123	98	108	98	103.6	104.1	103.8
1973	100	113	104	82	126	98	110	96	99.1	105.3	101.9
1974	100	114	105	78	129	96	106	91	101.7	103.8	102.6
1975	100	113	105	88	131	97	98	87	99.8	103.9	101.6
1976 6/	101	114	106	83	126	97	103	86	103.1	105.4	104.3

1/ Civilian consumption only. Quantities of individual foods are combined in terms of 1957-59 retail prices. 2/ Includes butter. 3/ Excludes melons and baby food. 4/ Excludes soup, baby food, dry beans and peas, potatoes, and sweetpotatoes. 5/ Includes melons, dry beans and peas, nuts, soup, and baby food in addition to groups shown separately. 6/ Preliminary.

fruit likely will offset increases in most other crop food categories, including a further rise for coffee.

With food prices during this first half of 1976 averaging a little less than 5 percent above a year earlier, the average for the entire year still appears likely to be 3 to 4 percent above 1975. This would be the smallest annual increase since the 3 percent rise in 1971. Comparable increases for other recent years include 8½ percent for 1975 and about 14½ percent for both 1973 and 1974.

The farm value of a market basket of U.S.-produced foods for all of 1976 may average slightly below 1975. As a result, increases for food prices will mainly reflect wider farm-retail spreads along with higher prices for coffee, fishery products, and restaurant meals and snacks—which are not included in the market basket. The marketing spread is expected to average 4 to 5 percent above 1975, well below the increase of other recent years and a little less than the average increase for other goods and services.

Per capita food consumption for all of 1976 likely will be up around 2½ percent from last year and may exceed the record high of 1972 by a small margin. While this year's increase mainly reflects more ample supplies, it also reflects stronger demand associated with improved domestic economic conditions. Most of the increase will be associated with a nearly 5-percent rise for red meats and a 9-percent increase for poultry. Fish consumption may be about 2 percent higher with dairy product use up slightly and egg consumption about equal to last year.

Among crop food categories, sugar use may rise about 5 percent from last year's depressed level and vegetable oil consumption may be up about a tenth. Fruit and vegetable consumption may be slightly higher. These increases should more than offset declines indicated for fresh potatoes and coffee, leaving total consumption of crop foods record high for the year.

Food supplies and prices during the first half of 1977 will depend heavily on this fall's crop harvest, export demand for U.S. farm commodities, and the relative strength of the economic recovery now underway.

If present crop and livestock output prospects are realized, larger domestic food supplies will continue to dampen price rises resulting from strong domestic and foreign demand, rising marketing costs, and seasonal price increases for several food categories. Increases in the neighborhood of 1 to 2 percent each quarter now appear most likely during the first half of 1977. These increases, coupled with this summer's small rise, likely will leave average food prices for the first half of 1977 about 3 to 4 percent above a year earlier.

Larger output and less demand strength than now seems likely would hold food prices about steady at this fall's level and around 2 percent above a year earlier. Conversely, smaller supplies and stronger demand would result in a slightly steeper food price increase, with the average for the first half around 5 percent above a year earlier.

Commodity Review: Prices and Consumption

Meat-Reflecting larger meat supplies, the BLS retail meat price index trended generally lower from the October 1975 peak, when pork prices were record high, through April this year before turning up again in May and June. Although meat prices during January-June averaged 5 percent below the last half of 1975, they were 10 percent higher than in the first half of last year. While fed cattle prices during the first half of this year averaged below a year ago, the retail beef and veal price index averaged 4 percent higher. First half 1976 retail pork prices were down 7 percent from the last half of 1975, but still averaged 18 percent higher than in the first half of last year.

First half 1976 red meat production was 18.9 billion pounds, up 5 percent from the first half of 1975. The 10-percent increase in beef and veal production more than offset the 5-percent decline in pork output and a 10-percent decline in lamb and mutton production.

Record beef production so far this year helped to boost total red meat consumption to the highest level since 1972. Even with restricted pork supplies, first quarter red meat consumption totaled over 48 pounds per person (carcass weight), the largest since the summer of 1971. Second quarter meat consumption fell almost 2 pounds below the first quarter level, but remained almost 3 pounds per capita above a year earlier.

Retail meat prices likely will average below year-earlier levels through the balance of 1976. Some seasonal increases in beef and veal prices will be offset by lower trending pork prices. If meat production meets expectations for the rest of this year, per capita red meat consumption this year will total nearly 152 pounds on a retail-weight basis (189 pounds per person, carcass weight)—up about 4 percent from 1975 but near 1974's level.

Poultry-Output in 1976 has shown a sharp increase from 1975 as both broilers and turkeys will have record production this year. During the first 6 months of 1976 output of broiler meat was up 14 percent from a year earlier while turkey production was up 26 percent. Broiler production is expected to remain around 14 percent above 1975 in the third quarter, but may be up only around 10 percent from the large year-earlier level in October-December. Output of turkey meat will likely be

Table 3--Livestock products: Per capita consumption indexes, quarterly, 1969-76 1/
(1967=100)

Year and quarter	Meat	Poultry	Eggs	Dairy products: Excluding butter	Dairy products: Including butter	Animal fats: including butter	Total livestock products 2/
1969 I	102.9	85.2	99.4	98.2	98.7	100.7	99.3
II	99.5	97.3	97.0	102.8	102.2	88.1	99.7
III	102.7	106.9	96.9	100.6	100.1	95.6	101.9
IV	103.7	123.5	99.1	99.2	99.2	95.2	103.8
1970 I	101.5	91.8	98.9	98.9	98.9	99.4	99.4
II	100.8	102.1	96.5	100.4	99.4	83.7	99.9
III	104.8	113.2	97.2	100.2	99.7	84.3	103.1
IV	109.7	124.5	101.0	98.5	98.6	93.9	106.7
1971 I	106.2	92.8	98.2	99.0	99.0	98.8	101.8
II	106.1	100.7	96.4	100.2	99.3	83.7	102.3
III	109.0	113.0	95.2	100.5	99.5	88.2	105.2
IV	107.6	127.9	98.4	98.7	98.8	91.3	105.8
1972 I	105.4	98.0	98.7	99.7	99.2	89.1	101.9
II	104.8	108.4	93.3	101.0	100.0	79.8	102.3
III	103.7	115.7	92.9	100.6	99.7	82.4	102.5
IV	107.5	131.7	94.3	100.2	99.7	85.6	106.1
1973 I	100.9	95.6	92.4	99.7	99.2	82.5	98.8
II	95.3	101.7	91.5	100.7	99.8	78.8	96.8
III	93.3	107.1	87.6	100.3	99.3	75.7	95.9
IV	102.2	124.1	91.5	100.1	99.0	76.9	102.2
1974 I	102.5	99.0	90.5	99.1	97.7	73.7	99.3
II	104.4	108.0	89.5	98.7	97.4	74.0	101.0
III	104.2	108.6	87.6	100.3	99.4	78.5	101.4
IV	107.3	120.1	88.6	99.5	98.5	77.2	103.9
1975 I	99.0	91.2	86.6	97.9	97.6	82.6	98.8
II	97.2	101.8	83.7	99.8	98.8	77.2	97.2
III	98.4	107.8	85.6	101.1	99.6	69.6	98.2
IV	102.9	125.2	87.6	101.0	100.1	75.3	102.9
1976 I	102.1	101.5	85.6	101.1	99.6	72.4	102.1
3/II	100.4	110.6	83.7	101.4	99.9	70.9	100.4

1/ Civilian consumption only. Quantities of individual foods, measured in pounds equivalent to the form sold by retail food stores, combined in terms of average 1957-59 retail prices. 2/ Excludes fish and honey. 3/ Preliminary.

around 12 percent above last year in July-September, but the margin of increase may narrow to only 6 percent in the fourth quarter.

Both broiler and turkey producers will likely find themselves in a cost-price squeeze late this year and on into 1977. This will affect turkey producers more than broiler producers because the main marketing season for turkeys is late summer and fall. Unless market prices for turkeys this fall are higher than currently expected, there likely will be a moderate drop in turkey production during the first half of 1977. Broiler output likely will show a moderate increase in the first half of 1977.

Retail poultry prices in the second quarter dropped slightly from first quarter but remained above April-June 1975. Retail prices for frying chicken may show a small increase this summer before dropping seasonally in the fall. Turkey prices may show little, if any, change in the second half as larger supplies of turkeys and other meats are expected to limit the normal seasonal increase this year. Larger supplies and lower prices for pork may result in turkey prices below 1976 levels in the first half of 1977.

Based on preliminary data, the consumption of chicken meat in January-June rose almost 2 pounds per person from the 19.9 a year earlier. All of the gain was from increased consumption of broilers since other chicken use dropped slightly. Consumption for 1976 is expected to total around 44 pounds per person, compared with 40.3 last year and the record 42 pounds in 1972. Turkey consumption in the first half was 2.7 pounds per person, up from 2.5 last year. Total consumption of turkey meat in 1976 is expected to be up a half pound from the 8.6 pounds in 1975.

Eggs-Production through the first 6 months of 1976 was almost 1 percent above 1975, as higher output per hen more than offset reduced layer numbers. More replacement pullets are expected to result in layer numbers gaining relative to 1975 in coming months. Also, the rate of lay will continue above a year earlier. Thus, egg production will likely be around 1 to 2 percent above last year during the second half of 1976. Output is expected to continue above year-earlier levels in early 1977, but reduced profitability may cause the margin of increase to narrow next spring.

First half 1976 retail egg prices averaged about 6 percent above first half 1975 despite the increased output. Wholesale prices (New York, Grade A large) during January-July averaged a little over 60 cents per dozen, 6 cents above 1975. They have strengthened more than earlier expected this summer, and in early August averaged 67 cents per dozen, 12 cents above a year earlier. Prices are expected to remain strong during the balance of 1976, but may show only a small seasonal increase from current levels.

Preliminary data indicate that per capita egg consumption in the first half of 1976 was about 1 egg less than the 138 consumed in January-June 1975. Per capita egg consumption for 1976 is expected to total near the 1975 level of 35 pounds, retail weight (278 eggs per person, farm basis).

Fish[1]—Consumption of seafood products increased significantly in the first half of 1976. Sales away from home were considerably higher than a year ago. Retail sales were off, however, reflecting a mounting consumer resistance to rising prices for practically all fishery products. Second quarter retail prices averaged 3 percent above the first quarter and 13 percent above a year ago.

Supply problems continue to affect the market for some products, although the recent influx of seasonally heavy supplies has greatly moderated existing shortages. Higher U.S. imports, the result of good worldwide catches, have been especially important to the improvement in supplies, although increased domestic landings have also been a factor. By July 31, total inventories of fresh and frozen fishery products were a more normal 327 million pounds, 7 percent above 1975. Products which continue to be in relatively short supply include flounder, haddock and ocean perch fillets, canned salmon, and shrimp.

Supplies are expected to generally improve during the remainder of the year and per capita consumption could increase around 2 percent from the 12.1 pounds consumed last year. The quantity of groundfish and shrimp products available, however, will remain somewhat short. This will be particularly true for groundfish since stringent catch quotas here and abroad will likely be reached shortly. Domestic landings and imports of shrimp will continue above 1975, but extremely low inventories will limit quantities available.

Overall, retail prices will marginally increase during the second half, although prices for some products may temporarily decline in the near future. Heavy production of canned sardines and salmon, and building consumer resistance to shrimp and tuna, will limit price increases through the end of the year and into 1977. As groundfish quotas are reached, supplies of fillets, sticks, and portions will become limited, causing prices to advance more rapidly than other products.

Dairy—Milk production continued to show large increases from a year earlier as June-July output was up more than 4 percent. Although the effects of the drought in the upper Midwest are still very uncertain, milk output probably will remain above a year ago during the rest of 1976, due to fairly favorable milk-feed price relationships. For all of

[1]Information supplied by Economic and Market Research Division, National Marine Fisheries Service, U.S. Department of Commerce.

Table 4--Civilian per capita consumption of major food commodities (retail weight) and civilian population, selected years 1/

Commodity	1960	1967	1973	1974	1975 5/	1976 forecast as percentage of 1975
			Pounds			Percent
Meats:						
Beef	134.2	145.1	142.3	152.2	145.3	104
Veal	64.3	78.8	81.1	86.4	88.9	106
Lamb and mutton	5.2	3.2	1.5	1.9	3.5	86
Pork (excluding lard)	4.3	3.5	2.4	2.0	1.8	94
	60.4	59.6	57.3	61.9	51.0	103
Fish (edible weight)	10.3	10.6	12.9	12.1	12.1	102
Poultry products:						
Eggs	42.4	40.7	37.3	36.6	35.3	100
Chicken (ready-to-cook)	27.8	36.5	40.7	41.1	40.3	109
Turkey (ready-to-cook)	6.2	8.6	8.5	8.9	8.6	106
Dairy products:						
Cheese	8.3	10.1	13.7	14.6	14.5	107
Condensed and evaporated milk	13.7	9.0	6.0	5.6	5.3	96
Fluid milk and cream (product weight)	321.0	303.0	293.0	288.0	291.0	101
Ice cream (product weight)	18.3	17.8	17.5	17.5	18.6	99
Fats and Oils--Total, fat content	45.3	49.4	54.3	53.2	53.3	104
Butter (actual weight)	7.5	5.5	4.8	4.6	4.8	90
Margarine (actual weight)	9.4	10.5	11.3	11.3	11.2	103
Lard	7.6	5.4	3.4	3.2	2.9	103
Shortening	12.6	15.9	17.3	17.0	17.3	105
Other edible fats and oils	11.5	15.2	20.8	20.3	20.3	107
Fruits:						
Fresh:	89.6	79.1	73.8	76.1	80.3	100
Citrus	32.5	30.6	26.4	26.5	27.9	97
Noncitrus	57.1	49.4	47.4	49.6	52.4	101
Processed:						
Canned fruit	22.6	22.6	21.3	19.8	18.9	106
Canned juice	13.0	11.7	15.9	14.7	14.7	99
Frozen (including juices)	9.1	10.1	11.2	11.3	12.7	100
Chilled citrus juices	2.1	4.4	5.3	5.2	5.7	109
Dried	3.1	2.8	2.6	2.5	2.6	108
Vegetables:						
Fresh 2/	96.0	90.8	92.4	93.2	92.8	104
Canned, excluding potatoes and sweetpotatoes	43.4	48.8	54.3	53.4	53.4	105
Frozen, excluding potatoes	7.0	9.0	10.6	10.2	9.6	99
Potatoes (including fresh equivalent of processed)	104.0	104.3	112.6	110.7	120.2	96
Sweetpotatoes (including fresh equivalent of processed)	6.5	5.3	4.7	5.1	5.0	100
Grains:						
Wheat flour 3/	118	112	109	106	107	100
Rice	6.	7.5	7.0	7.6	7.6	105
Other:						
Coffee	11.6	11.1	10.1	9.4	9.0	97
Tea	0.6	0.7	0.8	0.8	0.8	100
Cocoa	2.9	3.4	3.4	3.0	2.6	108
Peanuts (shelled)	4.9	5.7	6.6	6.4	6.8	101
Dry edible beans	7.3	6.9	6.5	6.7	6.7	98
Melons	23.2	20.3	19.7	17.2	17.5	100
Sugar (refined)	97.6	97.3	102.1	97.0	88.7	105
			Millions			
Civilian population 4/	178.1	195.3	208.1	209.7	211.4	101

1/ Quantity in pounds, retail weight unless otherwise shown. Data on calendar year basis except for dried fruits, fresh citrus fruits, peanuts, and rice which are on a crop-year basis.
2/ Commercial production for sale as fresh produce.
3/ White, whole wheat, and semolina flour including use in bakery products.
4/ July 1 civilian population used to derive per capita figures expect for sugar, dried fruits, peanuts, and rice.
5/ Preliminary.

NOTE: Prior to the February 1976 issue of the National Food Situation, data in this table were shown on a primary distribution weight basis (e.g. carcass weight for meat). Historical data on a retail weight basis may be found in the Food Consumption, Prices and Expenditures, Supplement for 1974 to Agricultural Economic Report No. 138, ERS, USDA.

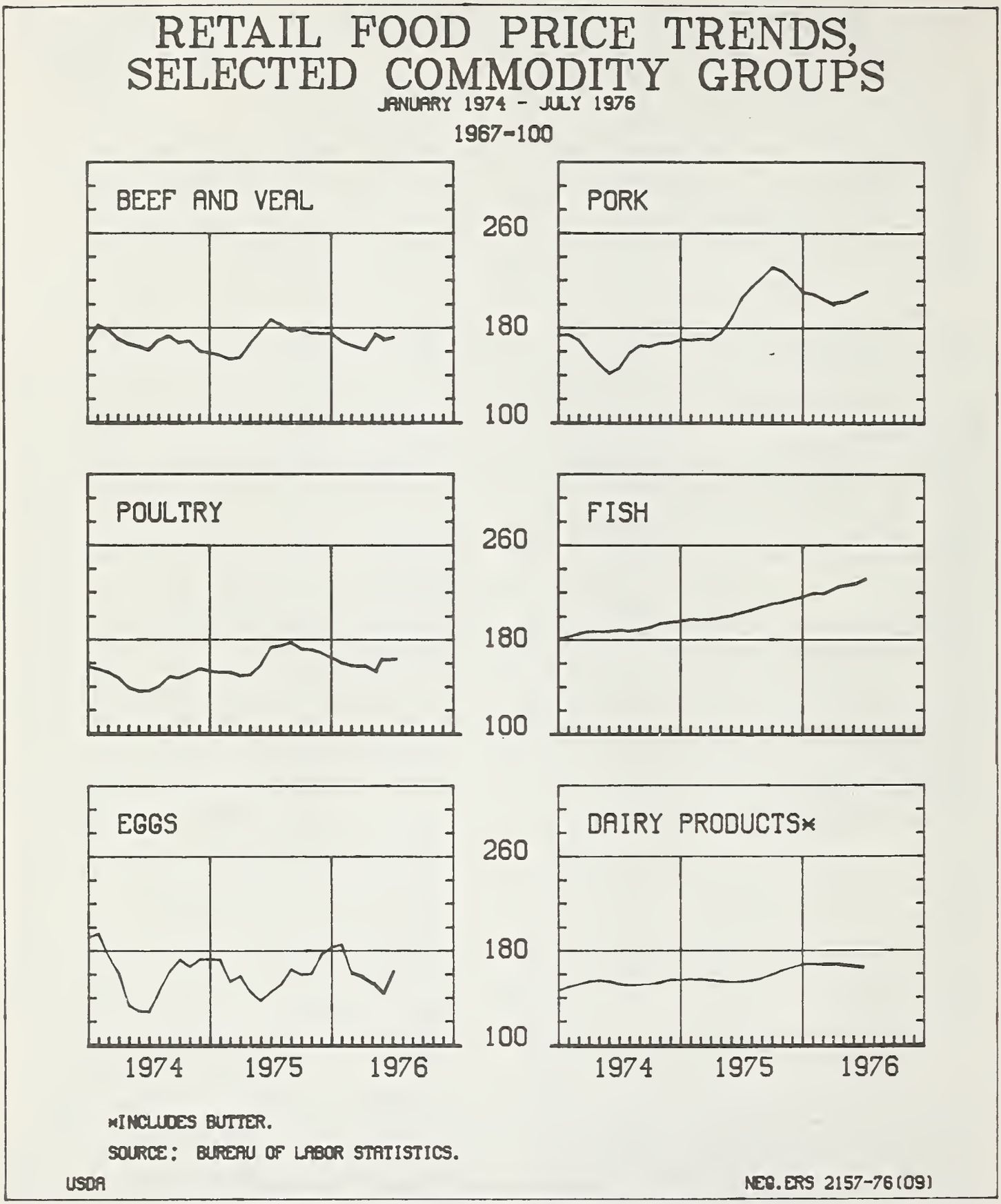
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - JULY 1976
1967=100
BEEF AND VEAL
PORK
POULTRY
FISH
EGGS
DAIRY PRODUCTS*
260
180
100
1974
1975
1976
*INCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2157-76(09)

Figure 8

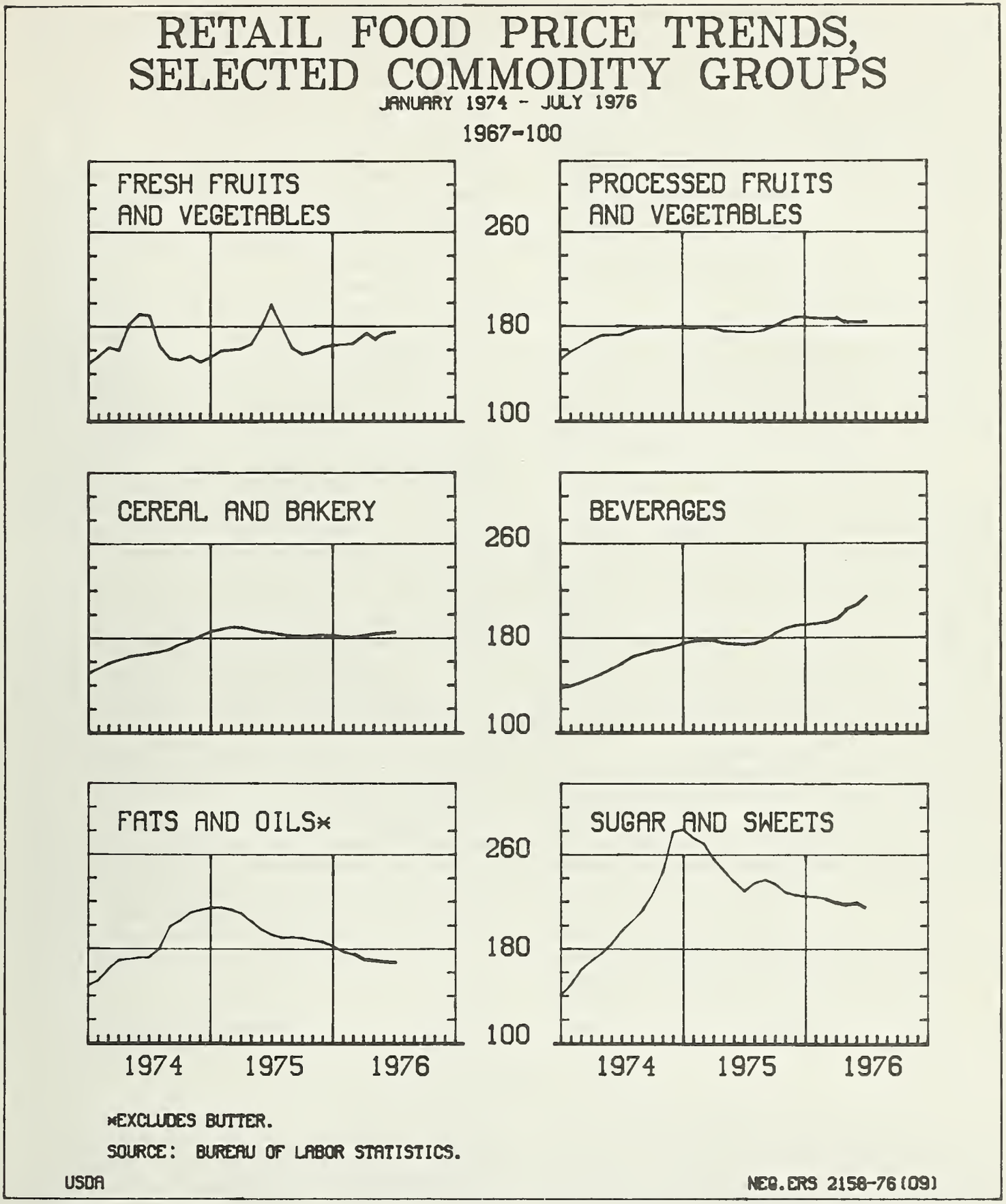
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - JULY 1976
1967-100
FRESH FRUITS AND VEGETABLES
PROCESSED FRUITS AND VEGETABLES
CEREAL AND BAKERY
BEVERAGES
FATS AND OILS*
SUGAR AND SWEETS
260
180
100
1974
1975
1976
*EXCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2158-76 (09)

Figure 9

1976, milk production could be 3 billion pounds above 1975's 115.5 billion pounds.

The increases in milk output have readily been absorbed by increased sales of dairy products, especially cheese, and the rebuilding of commercial stocks. Farm milk prices have therefore been strong and wholesale butter and cheese prices this summer have been well above mid-May. However, the recent sizable increases in both butter and cheese output and the adequate commercial stocks will limit further increases in coming months. Retail prices of milk and dairy products will rise this fall and winter, but increases will not match last year's very sharp jumps.

Paced by record cheese sales, sales of milk in all dairy products were substantially above a year ago during the first half of 1976. Sales of both American cheese and other varieties were up a tenth this spring. Fluid milk sales during the second quarter about equaled a year earlier, even though retail prices were considerably higher. Although the much wider difference between retail butter and margarine prices has sharply reduced retail butter sales, demand has been firm among bulk users and butter sales were the same as the 1970-74 average.

Fruit—August 1 production prospects indicated noncitrus fruit production for 1976 will be near last year's utilized level. If the forecasts are realized, larger crops of grapes, pears, and peaches will be harvested this year. However, the apple crop will be substantially below last year's record level. In addition, another large citrus crop is anticipated during 1976/77, since trees in Florida have been in generally good to excellent condition.

The retail fresh fruit price index has been below a year ago so far this year, and in July was nearly a tenth lower. July retail prices were below year earlier levels for all fresh fruit items priced for the index except fresh orange juice. Fresh fruit prices will decline in the fall as seasonally larger supplies of fruit become available. However, prices may average slightly above a year ago because of the substantially smaller apple crop. Consequently, the index for 1976 is expected to average only slightly below 1975. Total per capita consumption of fresh fruit will about match last year's level, while processed fruit may be up around 2 percent from 1975's record.

Potatoes—Fall crop potato acreage is 10 percent larger than in 1975. Based on average yields of the past 5 years, U.S. fall output would increase 7 percent to a record 295 million cwt. A crop this size compares with 276 million cwt. in 1975 when prices generally exhibited an upward trend to the end of the marketing season. In 1974, a record crop of 289 million cwt. resulted in depressed prices through much of the season. Even though there is likely to be substantial export activity as a result of the drought in Europe, a record fall crop would likely result in lower prices than a year ago.

Vegetables—Total vegetable consumption for all of 1976 may rise about 1 percent above last year, with both fresh and processed sharing in that advance.

With large carryovers of most important canned and frozen vegetables, the industry has planned substantial cutbacks in 1976 processed vegetable production. Average yields from 14 percent less acreage would result in materially smaller packs of several leading vegetables. Nonetheless, total supplies are expected to be ample, and retail prices may remain relatively stable this fall.

Despite the recent strike by cannery workers, the California tomato pack is going to be large enough to result in continued ample supplies of tomato products. Canned pea supplies again may be too large for normal expected use. However, acreage cuts in sweet corn and snap beans likely will result in smaller packs but adequate supplies for 1976/77. For other canned vegetables—beets, sauerkraut, and lima beans—some further cuts would be in line with recent annual use. With smaller packs offsetting larger inventories, the total supply of frozen vegetables in 1976/77 may be smaller than a year earlier, but adequate for domestic needs.

Dry bean production in 1976 is estimated at 18.7 million cwt., 9 percent above the 1975 crop but 8 percent below the record crop of 1974. During the past marketing season prices to growers moved steadily lower as the season progressed. In the absence of a strong export demand the downward trend in price is expected to continue as the new season begins in September.

As of August 1 dry pea production in 1976 was forecast at 2.0 million cwt., 25 percent below 1975 and 63 percent below 1974. Idaho and Washington are the only States for which estimates of dry pea acreage and production are currently made. Hailstorms in Idaho on August 2 and 3 caused moderate to heavy damage which will further reduce production from August 1.

In view of the reduced 1976 crop, the relatively larger carryover of dry peas and lentils will not be burdensome for producers. The total prospective supply for 1976/77 could set the stage for generally higher prices this fall.

Cereal and Bakery—Larger supplies and lower prices for grains, vegetable oils, and sugar—major ingredients for this category of food—have resulted in small retail price declines during the past year. Prices during the first half of 1976 averaged around 3 percent below a year earlier.

With record or near record harvests of grain expected again this year, supplies will remain ample for both domestic and foreign markets.

Although ingredient cost may continue as a moderating influence, retail prices are expected to advance moderately this fall and winter, mainly reflecting rising marketing costs.

Sugar—The 1976/77 world sugar crop may be 3 to 6 million tons above last year's record 90-million-ton output, despite the drought in Europe. World stocks at the end of the 1975/76 season were up about 3 percent from a year earlier, reversing a 5-year trend of generally declining stocks. Prospects for a significant increase in stocks again this year have exerted further downward pressure on sugar prices.

Retail prices for sugar and sweets during the first half of 1976 averaged about 15 percent below a year earlier. Although prices continued to decline through July, the year-to-year difference narrowed to about 5 percent. Retail sugar prices are expected to decline slightly this fall if current supply prospects are realized.

With ample supplies and lower average prices, per capita consumption of sugar in 1976 is expected to rise about 5 percent from the low level of 1975.

Beverages—The 1976/77 coffee crop is estimated at 60.5 million bags, down 16 percent from the previous crop and the smallest since 1970/71. The sharp drop in this year's production resulted mainly from the severe frost in Brazil in July 1975. Coffee supplies are likely to be tight for at least another 2 years while trees recover from the frost damage and new plantings reach bearing age.

Retail coffee prices continued to advance during the first half of 1976. The July price for regular coffee was up by half while the instant price was nearly a third above a year earlier. Retail prices are likely to continue their advance for some time, reflecting current high wholesale prices. Per capita consumption of coffee in 1975 totaled 12.3 pounds on a green bean basis—or 9.2 pounds, retail weight basis—continuing the downtrend of recent years. With sharply higher prices, another decline is likely this year.

Early season prospects for an increase in world cocoa bean production failed to materialize and the 1975/76 crop is now estimated to have declined about 1 percent from the preceding year. World grindings for 1976 are expected to be larger, reflecting increased sales due to lower cocoa and sugar prices early in the year. Because of tightening supplies, wholesale cocoa prices increased through midyear and are expected to remain firm until the size of the 1976/77 crop is indicated. Harvesting normally begins in October, but new crop supplies don't usually reach importing countries until early the next year.

Fats and Oils—During calendar year 1976, per capita consumption of edible food fats is expected to total about 56 pounds, up over 2 pounds from 1975. Sharp increases in the use of cooking and salad oils and shortening primarily account for the expansion, although margarine and lard use also is expected to be up slightly. Butter consumption likely will resume its downward slide and total a little below last year.

The strong offtake this year is due mainly to large supplies of vegetable oils, lower prices, and the upturn in the economy from last year's recession. Heavy soybean crushings for soybean meal are resulting in large supplies of soybean oil. Soybean oil now accounts for about 60 percent of total fats and oils used for food. Wholesale prices of food fats and oils this year—while high in relation to historical averages—are averaging below 1975, reflecting the better balance in supply and demand. Recently, prices have strenghtened due in part to concern about the size of the 1976 soybean crop. Soybean supplies in the 1976/77 marketing year are expected to be down about a tenth from the previous year. Despite large stocks, soybean oil prices in coming months probably will remain relatively strong as a result of the tighter soybean supply situation. Generally, soybean oil is the price maker for the domestic food fats and oils market.

Peanut supplies are record large and edible use in 1976/77 is expected to increase about 4 percent to nearly 2 billion pounds (farmers' stock basis). This is equivalent to about 9 pounds per person.

FOOD SPENDING AND INCOME

Rising consumer income, generally plentiful food supplies, and, to a lesser extent, continued population growth contributed to further increases in total consumer spending for food. Preliminary data indicate that food spending during the first 6 months of 1976 rose 8 percent above a year ago averaging $195.7 billion (seasonally adjusted, annual rate). However, with more moderate rises in food prices, the rate of increase in expenditures has slowed in comparison to the previous 3 years. Increases in expenditures for food away from home continued to outpace expenditures for food at home compared to the same period a year ago. However, a larger proportion of the increase in away-from-home expenditures can be attributed to 1976 price increases.

Preliminary data indicate that personal consumption expenditures for food in the second quarter were $197.3 billion (seasonally adjusted, annual rate), a 1.7 percent increase over the first quarter of the year. Both expenditures on restaurant meals and snacks and food purchased for home use rose at nearly the same pace. Second quarter food expenditures were up nearly 8 percent from the same period a year earlier. The annual rate of increase in both major categories of food spending has continued to decline as price increases moderate. Spending on restaurant meals and snacks was about 10 percent above a year earlier while food purchased for home use was up 7 percent.

Change in food expenditures, second quarter, 1976[1]
(Seasonally adjusted)

Item	From first quarter 1976	From second quarter 1975
	Percent	*Percent*
Total food		
Current dollars	1.7	7.7
1972 dollars	1.7	5.0
Food at home		
Current dollars	1.6	7.0
1972 dollars	2.2	5.7
Food away from home		
Current dollars	2.0	10.1
1972 dollars	.4	2.9

[1] Preliminary.

After adjusting for food price movements, total food expenditures rose 1.7 percent above the first quarter. Compared to a year earlier, total food expenditures in constant dollars rose 5 percent. Spending for food used at home showed the greatest increase, rising over 5½ percent, while spending on restaurant meals and snacks rose at a little less than 3 percent.

The Department of Commerce released its revisions in the National Income and Product Accounts. Data on food expenditures were revised back to 1973. Total food expenditures for 1973 were increased slightly while larger revisions were made for both 1974 and 1975.

Proportion of Consumer Expenditures

Consumer expenditures for all major categories of goods and services have been strengthening in recent quarters. Increases in the second quarter were not as large as in previous quarters, most notably for durable goods which generally show greater quarter-to-quarter fluctuations. While expenditures for food showed a greater rise than

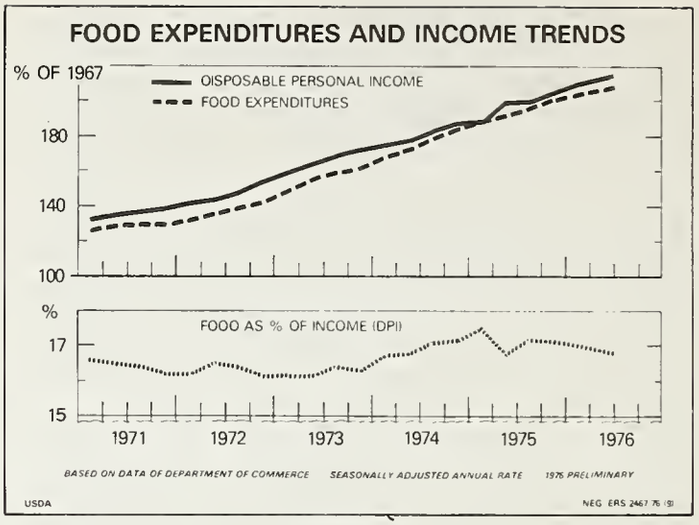

Figure 10

other nondurable goods, they did not keep pace with the increases posted by services or durable goods. Disposable personal income rose at a faster pace than food expenditures causing the percentage of disposable personal income allocated to food expenditures to decline for the fourth consecutive quarter. Because personal consumption expenditures for food are not expected to rise as rapidly as disposable personal income, this percentage will likely average less in 1976 than the 17.1 in 1975 (table 5).

Major shifts in the distribution of personal consumption expenditures among various categories of goods and services have occurred during the past several years. Spending for food at the beginning of 1973 constituted less than 18 percent of total consumer expenditures; by the first quarter of 1974

Proportion of total consumer expenditures

Item	2nd quarter		
	1974	1975	1976
	Percent	*Percent*	*Percent*
Food excluding alcoholic beverages	18.6	19.1	18.5
Nondurables excluding food	23.7	23.2	22.3
Clothing and shoes	7.4	7.2	6.9
Gas and oil	5.2	5.1	4.8
Other	11.1	10.9	10.6
Durables	13.9	13.2	14.6
Automobiles and parts	5.5	5.2	6.6
Other	8.4	8.0	8.0
Services	43.7	44.5	44.6
Housing	15.3	15.4	15.4
Household operation	6.3	6.6	6.5
Transportation	3.5	3.5	3.5
Medical care	7.3	7.7	8.0
Other	11.3	11.3	11.2

[1] Preliminary.

Table 5--Expenditures for food in relation to disposable income, 1960-76 1/

Year	Disposable personal income	Personal consumption expenditures for food 2/					
		For use at home 3/		Away from home 4/		Total	
		Amount	Percentage of income	Amount	Percentage of income	Amount	Percentage of income
	Bil. dol.	Bil. dol.	Pct.	Bil. dol.	Pct.	Bil. dol.	Pct.
1960	349.4	56.3	16.1	14.2	4.1	70.5	20.2
1961	362.9	57.3	15.8	15.1	4.2	72.4	20.0
1962	383.9	57.8	15.1	16.1	4.2	73.9	19.3
1963	402.8	58.8	14.6	17.0	4.2	75.8	18.8
1964	437.0	62.2	14.2	18.0	4.1	80.2	18.3
1965	472.2	66.8	14.2	19.0	4.0	85.8	18.2
1966	510.4	72.4	14.2	20.2	3.9	92.6	18.1
1967	544.5	74.0	13.6	21.0	3.9	95.0	17.5
1968	588.1	79.5	13.4	23.2	3.9	102.7	17.5
1969	630.4	84.7	13.4	24.8	3.9	109.5	17.3
1970	685.9	91.8	13.4	26.8	3.9	118.6	17.3
1971	742.8	94.2	12.7	27.8	3.7	122.0	16.4
1972	801.3	100.5	12.5	30.1	3.8	130.6	16.3
1973	901.7	112.9	12.5	33.9	3.8	146.8	16.3
1974	982.9	128.5	13.1	38.4	3.9	166.9	17.0
I	948.4	122.9	13.0	36.4	3.8	159.3	16.8
II	969.5	126.1	13.0	37.8	3.9	163.9	16.9
III	998.0	131.4	13.2	39.0	3.9	170.4	17.1
IV	1,015.8	133.8	13.2	40.4	4.0	174.2	17.2
1975	1,080.9	141.0	13.0	43.8	4.1	184.8	17.1
I	1,023.8	137.0	13.4	42.1	4.1	179.1	17.5
II	1,088.2	139.6	12.8	43.6	4.0	183.2	16.8
III	1,091.5	143.2	13.1	43.7	4.0	186.9	17.1
IV	1,119.9	144.1	12.9	46.0	4.1	190.1	17.0
1976							
I	1,147.6	147.0	12.8	47.0	4.1	194.0	16.9
II	1,172.5	149.3	12.7	48.0	4.1	197.3	16.8

1/ Quarterly data are seasonally adjusted annual rates. All data reflect the January 1976 revision in the National Income and Product Accounts. 2/ Data of the Department of Commerce in the Survey of Current Business. Omits alcoholic beverages, food donated by Government agencies to schools and needy persons, and non-personal spending for food such as business purchases of meals, food furnished inmates of hospitals and institutions, and food included with transportation tickets and camp fees. 3/ Includes food consumed on farms where produced. 4/ Includes food served to the military and employees of hospitals, prisons, and food service establishments. 5/ Preliminary.

that proportion had risen to 18.8 percent. At the same time, consumers were reducing the proportion of their expenditures on durable goods and, to a more limited extent, on clothing and shoes. Durable goods spending, which accounted for nearly 16 percent of the consumer's budget at the beginning of 1973, had fallen to about 14 percent at the beginning of 1974 and continued down to 13 percent by the end of the year. However, at the beginning of 1975 and continuing through the first half of this year, these trends appeared to be reversing. The proportion of consumer expenditures allocated to durables rose from 13 percent at the beginning of 1975 to 14 percent at the end of the year and continued to rise to 14.5 percent during the second quarter of this year. The proportion of spending on clothing and shoes remained stable during 1975 and has since declined slightly. Spending on food during the first half of 1975 accounted for over 19 percent of the total and now accounts for 18.5 percent.

Quarterly changes in personal expenditures and disposable personal income (Seasonally adjusted)

Item	1975		1976	
	III	IV	I	II
	Pct.	*Pct.*	*Pct.*	*Pct.*
Personal consumption expenditures	2.8	2.5	3.1	2.0
Durable goods	7.1	4.2	6.7	2.4
Nondurable goods	2.2	1.7	1.8	1.3
Food	2.0	1.7	2.1	1.7
Other	2.3	1.7	1.5	1.0
Services	2.2	2.7	3.3	2.5
Personal disposable income	.3	2.6	2.5	2.2

Rapidly rising prices for gasoline, coal, and fuel oil did increase the proportion spent for these items. The increase from nearly 4½ percent in the early part of 1973 to an allocation averaging roughly 5 percent through 1975 and continuing in 1976 represents an additional adjustment.

USDA Food Programs

Preliminary data in the second quarter indicate that 18.1 million persons participated in the USDA's family food assistance programs. Most of those enrolled in the family food assistance programs participate in the Food Stamp Program. For the U.S. (50 States and District of Columbia) participation averaged 16.6 million during the quarter. This represented a 3½ percent drop from the first quarter and a 6 percent drop from a year ago. This decline is partly due to greater numbers returning to employment along with a generally shorter average duration of unemployment and general economic improvement. Part of the April-June drop in Food Stamp participation can be attributed to seasonal factors. However, after adjusting for those seasonal factors participation dropped over 1 percent from the preceding quarter. The greatest decline came among nonpublic assistance participants, who for the first time in over a year represented less than 50 percent of those enrolled.

Along with the Food Stamp Program, 80,000 people were enrolled in the Food Distribution Program. During April, May, and June they received food valued at $2.3 million. An average of 120,000 received food valued at $4.2 million through the Supplemental Food Program and food valued at $2.2 million was donated to elderly people.

The total value of food coupons issued to the 50 States and District of Columbia through the Food Stamp Program was nearly $2 billion during the second quarter, over 5 percent of the value of food purchased in the U.S. for home use. Nearly $800 million of that total represented payment for the stamps on the part of recipients with the additional $1.2 billion representing the cost to the Federal Government in the form of bonus stamps. In the United States, both the total value of stamps and the value of bonus stamps declined relative to the first quarter of the year but remained above last year's level due to cost of living adjustments in the value of the coupon allotment. Inclusion of Puerto Rico and the territories raises the total issuance of stamps to $2.2 billion and bonus stamps to $1.3 billion.

Child Nutrition

An average of 25.6 million children participated in the School Lunch Program during the 1975/76 school year; of those, an average of 25.1 million children participated in the 50 States and the District of Columbia. This represents an increase of a half million children over the previous school year with participation in Puerto Rico and the territories remaining essentially unchanged. Participation in the School Breakfast Program rose by a fourth to 2.0 million in the U.S. with an additional 200,000 participating in Puerto Rico and the territories. Federal cash donations to schools in the U.S. for food purchases under the School Lunch Program totaled 838.5 million during the first half of 1976—a 12 percent increase over a year earlier (table 6). Cash donated for food purchases through the School Breakfast Program was 26 percent above a year earlier and totaled $64.4 million. Schools in the 50 States and the District of Columbia also received $259.5 million in commodity donations. Puerto Rico and the territories received

Table 6--Federal cost of USDA food programs (50 States and the District of Columbia only)
Calendar years 1970-76

Year	Food stamps		Food distribution 2/			Child nutrition 5/				WIC 7/	Total 8/
	Total issued	Bonus stamps 1/	Needy families	Schools 3/	Other 4/	School lunch	School breakfast	Special food 6/	Special milk		
	Million dollars										
1970	1,925	1,104	275	234	34	337	14	15	96	---	2,109
1971	3,103	1,699	261	311	37	628	22	34	92	---	3,084
1972	3,615	1,980	225	275	39	785	28	43	91	---	3,466
1973	4,049	2,209	152	253	48	939	43	52	63	---	3,784
I	999	546	45	87	10	290	11	5	30	---	1,024
II	992	537	41	48	11	221	9	9	22	---	898
III	1,007	554	33	29	13	109	6	33	1	---	795
IV	1,052	572	33	89	14	319	17	5	10	---	1,067
1974	5,868	3,498	87	355	36	1,137	67	87	90	33	5,390
I	1,316	794	34	126	9	361	19	9	21	1	1,374
II	1,353	799	44	40	11	272	16	14	16	7	1,219
III	1,488	885	4	60	6	132	8	52	16	10	1,173
IV	1,711	1,020	5	129	10	372	24	12	37	15	1,624
1975	7,680	4,602	11	364	33	1,340	94	116	134	106	6,800
I	1,866	1,131	3	142	8	412	27	13	39	18	1,793
II	1,913	1,145	3	79	11	335	24	20	33	30	1,680
III	1,948	1,171	3	23	7	157	11	70	19	29	1,490
IV	1,953	1,155	2	120	7	436	32	13	43	29	1,837
1976											
I	2,064	1,249	3	151	8	481	36	23	47	38	2,036
II	1,971	1,186	2	108	8	358	28	29	35	40	1,794

1/ Includes Food Certificate Program. 2/ Cost of food delivered to State distribution centers. 3/ Includes Special Food Services. 4/ Includes supplemental food, institutions, elderly persons. 5/ Money donated for local purchase of food. Excludes nonfood assistance. 6/ Includes Child-Care and Summer Food Programs. 7/ Special Supplemental Food Program for Women, Infants, and Children begun January 1974. 8/ Excludes those food stamps paid for by the recipient. Do not add due to rounding.

an additional $61.6 million in commodities and cash grants for food. Through the Special Milk Program, over 1.3 million half pints of milk were distributed to children through child care institutions, schools, and summer camps at a cost of just over $82 million.

The total value of cash and commodities donated in the 50 States and District of Columbia through USDA food programs was $3.8 billion during the first 6 months of 1976, an 11 percent increase over the first half of 1975. These Federal expenditures represented nearly 4 percent of total personal consumption expenditures for food. The value directed to Puerto Rico and the territories was $362.2 million, bringing the total Federal expenditure to $4.2 billion.

SUPPLY AND UTILIZATION

The absence of severe weather problems and the second consecutive year of record production, along with a buildup in inventories should result in ample food supplies in 1976 and into 1977 (table 7). Net production of all farm food commodities may remain the same while stocks may be rebuilt by 1½ percent of net utilization. Strong demand both at home and abroad could increase overall utilization of total farm food commodities about 4 percent. Total domestic food use is expected to increase about 4 percent from 1975 to 1976, reflecting increased civilian consumption of both crop and livestock food commodities. Expanded feed use plus strong export demand will likely boost total disappearance from 1975.

Total production of crop food commodities in 1976 is expected to about match the record output of a year ago. Stocks of crop foods began the year nearly a fifth above 1975, mainly reflecting the large 1975 crop. With larger beginning inventories, prospects for large harvests again this year and strong foreign and domestic demand, total utilization of crop foods is expected to increase by close to 8 percent in 1976.

Improved economic conditions have provided the prospect of supplying major industrial countries, including the United States, with the grain and meal to satisfy increased demand for high protein foods. Exports of crop food commodities, which account for nine-tenths of all farm food exports, are expected to increase by 4½ percent in calendar year 1976, led by corn and soybeans. Corn exports will likely be up a fourth and soybeans a sixth from 1975. Export demand is still heavily dependent on the world weather situation. However, the demand for food products has grown as economic conditions have improved in both developed and developing countries. Shipments of grain to the Soviet Union, increased grain and soybean exports to Western Europe, and a greater demand by the developing countries of the Far East and Africa are expected to boost U.S. exports through the first half of 1977.

Civilian food use will likely increase around 3 percent from a year ago to a new record high. Consumption of oil products may rise by 13 to 14 percent, sugar by 5 to 7 percent, and fruits and vegetables by 2 to 3 percent.

The most noticeable gain in the total use of crop food commodities in 1976 is expected to be associated with a sharp recovery in feed use. Expanded meat and poultry production will likely boost feed

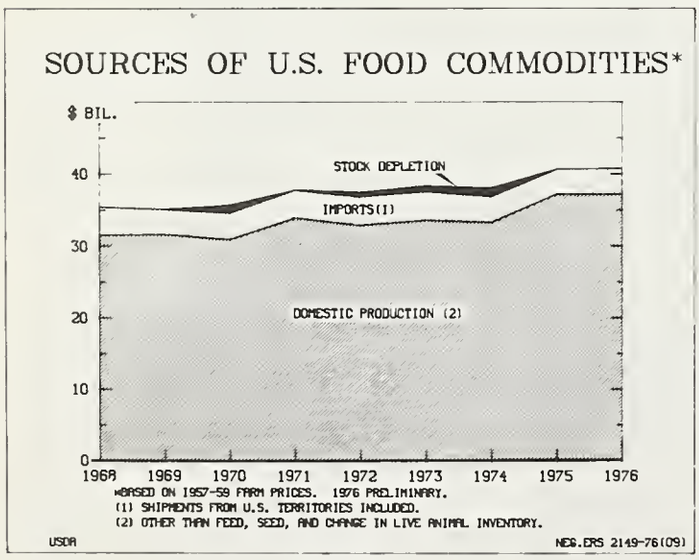

Figure 11

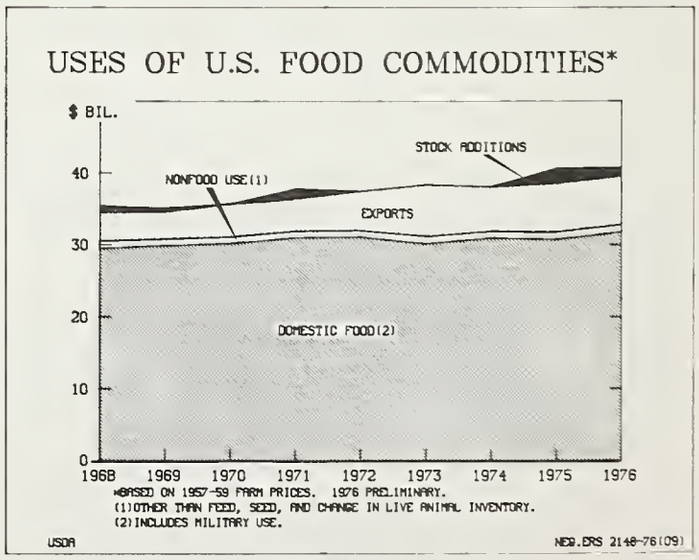

Figure 12

Table 7--Livestock, crop and total farm food commodities: Supply-utilization indexes by component and relationship of components to annual utilization, 1970-76 1/

Year	Supply			Total annual utilization	Utilization					
					Domestic use					Exports and shipments 4/
					Food		Non-food		Total	
	Production	Imports 2/	Stocks 3/		Civilian	Military	Seed and feed	Other		
	A--All food commodities indexes: (1967=100) 5/									
1970	98.4	105.4	120.7	105.7	105.8	70.2	---	90.6	104.5	114.0
1971	108.0	110.8	111.8	107.6	108.3	62.6	---	98.7	107.1	111.9
1972	104.7	115.2	123.4	111.2	109.8	49.8	---	92.5	107.9	135.0
1973	107.0	115.5	118.3	113.7	106.5	39.2	---	103.2	105.0	178.3
1974	106.1	104.0	112.2	113.0	109.2	34.1	---	103.0	107.4	154.7
1975	118.3	101.4	102.3	114.3	108.6	40.1	---	104.3	107.0	167.7
1976 6/	118.6	103.4	119.4	119.0	113.1	37.3	---	100.5	111.1	177.2
	Livestock food commodities: (1967=100)									
1970	103.5	124.6	97.5	104.8	105.8	71.6	102.0	95.8	104.7	108.7
1971	106.1	116.8	106.9	107.4	108.5	61.4	99.1	89.9	106.9	127.8
1972	105.6	134.1	102.4	107.7	109.2	49.3	99.5	92.2	107.4	121.5
1973	100.6	145.0	93.1	102.6	104.5	37.0	97.5	81.8	102.4	109.9
1974	105.5	119.2	103.2	106.5	109.1	32.0	87.3	89.9	106.6	106.0
1975	103.9	116.2	111.6	105.8	108.0	38.2	72.1	97.4	105.4	119.7
1976 6/	109.3	125.6	90.7	110.6	112.9	34.8	84.6	77.9	109.9	140.4
	Crop food commodities: (1967=100)									
1970	98.1	100.6	121.9	109.3	105.8	64.9	114.2	88.2	108.1	114.7
1971	113.5	109.3	112.1	111.0	108.0	67.2	117.5	103.0	111.3	109.7
1972	111.6	110.5	124.4	119.9	111.0	51.9	126.8	92.7	122.2	136.9
1973	119.5	108.2	119.6	128.1	111.0	47.3	121.1	113.4	114.7	187.9
1974	108.6	100.3	112.6	119.4	109.4	42.0	112.1	109.3	109.9	161.5
1975	125.9	97.8	101.9	116.4	109.9	47.3	95.4	107.6	103.9	174.5
1976 6/	126.3	98.0	120.8	125.2	113.7	46.6	112.0	111.4	112.3	182.3
	B--All food commodities: Percentage of annual utilization 5/									
1970	86.6	10.3	3.1	100.0	83.5	1.2	---	2.4	87.1	12.9
1971	93.3	10.6	-3.9	100.0	83.9	1.1	---	2.6	87.6	12.4
1972	87.6	10.7	1.7	100.0	82.4	.8	---	2.3	85.5	14.5
1973	87.5	10.5	2.0	100.0	78.1	.6	---	2.6	81.3	18.7
1974	87.3	9.5	3.2	100.0	80.5	.6	---	2.6	83.7	16.3
1975	96.3	9.2	-5.5	100.0	79.2	.7	---	2.6	82.5	17.5
1976 6/	92.7	9.0	-1.7	100.0	79.2	.6	---	2.4	82.2	17.8
	Livestock food commodities: Percentage of annual utilization									
1970	96.4	3.9	-.3	100.0	92.7	1.6	2.0	1.3	97.6	2.4
1971	96.3	3.6	.1	100.0	92.8	1.3	1.9	1.2	97.2	2.8
1972	95.7	4.1	.2	100.0	93.2	1.1	1.9	1.2	97.4	2.6
1973	95.7	4.6	-.3	100.0	93.6	.8	2.0	1.2	97.5	2.5
1974	96.5	3.7	-.2	100.0	94.0	.7	1.7	1.2	97.7	2.3
1975	95.9	3.6	.5	100.0	93.9	.8	1.4	1.3	97.4	2.6
1976 6/	96.4	3.7	-.1	100.0	93.7	.7	1.6	1.0	97.0	3.0
	Crop food commodities: Percentage of annual utilization									
1970	81.1	13.4	5.5	100.0	43.2	.4	34.5	2.7	80.8	19.2
1971	92.5	14.3	-6.8	100.0	43.4	.4	35.0	3.1	81.9	18.1
1972	84.1	13.4	2.5	100.0	41.2	.3	35.0	2.6	79.1	20.9
1973	84.4	12.3	3.3	100.0	38.6	.3	31.3	2.9	73.1	26.9
1974	82.3	12.2	5.5	100.0	40.8	.2	31.1	3.1	75.2	24.8
1975	97.8	12.2	-10.0	100.0	42.0	.3	27.0	3.1	72.6	27.5
1976 6/	91.2	11.4	-2.6	100.0	40.4	.3	29.6	3.0	73.3	26.7

1/ Quantities weighted by constant farm prices. Domestic use allocated on basis of value of processed products. Includes essentially all commodities having any U.S. food use; for item list, see NFS-124; for 1950-67 data see NFS-136. 2/ Includes shipments from U.S. Territories. 3/ Farm (other than live animals), commercial, and Government program holdings. Section A: January 1; derived by applying annual changes to January 1961 level. Section B: Represents stock changes. Negatives indicate stock increases; positives signify withdrawals. 4/ Includes shipments to U.S. Territories. 5/ Feed and seed omitted from total commodities to avoid double counting of use through livestock. 6/ Preliminary.

Table 8.--Livestock, crop, and total farm food commodities: Supply-utilization farm equivalent aggregates 1/
(Million Dollars)

Year	Supply			Total annual utilization	Utilization					
					Domestic Use					
					Food		Non-food			
	Production	Imports	Stock changes 2/		Civilian	Military	Seed and feed	Other	Total	Exports and shipments
	A.--All food commodities									
1967	31,439	3,486	-1,133	33,792	28,177	628	---	951	29,756	4,036
1968	31,515	3,886	-918	34,483	28,863	615	---	954	30,432	4,051
1969	31,637	3,532	-520	34,649	29,395	524	---	958	30,877	3,772
1970	30,927	3,675	1,100	35,702	29,799	441	---	862	31,102	4,600
1971	33,946	3,862	-1,432	36,376	30,528	393	---	939	31,860	4,516
1972	32,924	4,017	628	37,569	30,926	313	---	880	32,119	5,450
1973	33,640	4,028	763	38,431	30,008	246	---	981	31,235	7,196
1974	33,350	3,627	1,224	38,201	30,764	214	---	980	31,958	6,243
1975	37,191	3,535	-2,117	38,609	30,595	252	---	992	31,839	6,770
1976 3/	37,273	3,606	-668	40,211	31,870	234	---	956	33,060	7,151
	B.--Livestock food commodities									
1967	20,792	698	-171	21,319	19,577	497	440	308	20,822	497
1968	20,906	761	97	21,764	20,000	496	425	314	21,235	529
1969	20,991	794	89	21,874	20,175	424	440	314	21,353	521
1970	21,529	870	-56	22,343	20,703	356	449	295	21,803	540
1971	22,054	815	27	22,896	21,243	305	436	277	22,261	635
1972	21,964	936	55	22,955	21,384	245	438	284	22,351	604
1973	20,920	1,012	-60	21,872	20,461	184	429	252	21,326	546
1974	21,932	832	-50	22,714	21,359	159	392	277	22,187	527
1975	21,613	811	124	22,548	21,146	190	317	300	21,953	595
1976 3/	22,731	877	-29	23,579	22,096	173	372	240	22,881	698
	C.--Crop food commodities									
1967	17,445	2,810	-962	19,293	8,600	131	6,380	643	15,754	3,539
1968	17,718	3,148	-1,015	19,851	8,863	119	6,707	640	16,329	3,522
1969	18,100	2,761	-609	20,252	9,220	100	7,037	644	17,001	3,251
1970	17,108	2,828	1,156	21,092	9,096	85	7,284	567	17,032	4,060
1971	19,798	3,071	-1,459	21,410	9,285	88	7,494	662	17,529	3,881
1972	19,461	3,105	573	23,139	9,542	68	8,087	596	18,293	4,846
1973	20,853	3,040	823	24,716	9,547	62	7,728	729	18,066	6,650
1974	18,939	2,819	1,274	23,032	9,405	55	7,153	703	17,317	5,716
1975	21,959	2,747	-2,241	22,465	9,449	62	6,087	692	16,290	6,175
1976 3/	22,034	2,754	-639	24,149	9,774	61	7,145	716	17,696	6,453

1/ Quantities weighted by 1957-59 farm prices.
2/ Negatives indicate stock increases, positives signify withdrawals.
3/ Preliminary.

use by close to a fifth and will affect livestock production into 1977. The abundance and availability of the corn crop has resulted in larger placements of animals on feed and increased slaughter early this year. Feed use of corn itself may be up a fifth from last year. All in all, this increased feed use plus rising exports and domestic food use will likely increase use of crop food commodities by close to 8 percent.

Utilization of livestock food products is expected to increase by 4½ percent from 1975 to 1976. Total gross output could rise to a new record high, up about 5 percent from last year, as a result of last year's record crop production and increased feed supplies. Large supplies of feed this year resulted in greater marketings of fed cattle, an increase in the number of sows farrowing, a stepup in chick placements, and more concentrates being fed to dairy cows. Nonfed cattle slaughter is slowing down but still contributing to livestock production. All categories of livestock food commodities—led by pork, beef, and poultry—are rising. Production increases for individual livestock foods in 1976 may range from 1 to 2 percent for eggs to 12 percent for poultry, boosting gross output to a record level.

Imports and inventories of livestock food commodities, which account for a very small portion of total use, are expected to increase in 1976. Imports account for around 3½ percent of total utilization and are expected to grow slightly throughout the year.

Total domestic food use, the major portion of utilization of livestock food commodities, will likely increase by about 4 percent in 1976. Increases are expected in all major categories with beef up 7 percent, pork up 4 percent, and poultry up 9 percent from 1975.

Livestock food exports are expected to rise by 17 percent in calendar year 1976, reaching the highest level since 1964. Exports of livestock foods, which account for less than 10 percent of total farm food exports, are expected to show increases ranging from a tenth for dairy products to a third for poultry products.

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The Consumer and Open Date Labeling

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Abstract: A national survey of over 1,400 food shoppers this spring indicates that, although there is extensive awareness and use of open dates on food packages, shoppers are not very knowledgeable about the meaning of the several kinds of dates used. A significant number regard some open dates as throwout dates. A minority of the shoppers admit to problems with finding, reading and interpreting the meaning of dates. Although pull dates are the most commonly used by food processors and retailers, shoppers prefer types of dates that indicate the last day the product should be used. Only a minority of the shoppers want open dating expanded to additional products.

Standardization of the date types, presentation methods, and use of explanations of dates on packages would eliminate most of the problems of shoppers.

KEY WORDS: Open dates, food products, shoppers, problems, survey.

Open dating is only one of a number of relatively new decisionmaking information aids being offered to food shoppers by the Nation's food processors and retailers.

This article discusses food shoppers' knowledge, use, and preferences for open dating and problems and possible solutions. Information was obtained from personal interviews with over 1,400 shoppers in a national survey conducted late this spring.

Open Dates

An open date is defined as an easily read and understood calendar date on a food package indicating freshness. It tells either when a product was packaged or processed, when the product should be sold by the store, or when the product should be used by the food shopper. The open date itself can be, but does not necessarily have to be, accompanied by prefixes such as "Sell By," "Use By," or "Better If Used By" which tell the shopper its meaning.

Presently, open dating is strictly voluntary. Legislation has been introduced to provide for a more uniform and informative open dating system. However, thus far, no general standards or regulations have been set to specify for processors and retailers what types of dates and explanations should be used on their products and how that date should be presented. For example, pull dates are commonly found on many types of packaged food products.[1] Also, the prefix for a pull date is not restricted to the words "Sell By." "EXP" may also be used as a pull date for some products and some open dates may not be accompanied by any type of prefix.

Four different date prefixes were considered in the study. These prefixes and their definitions are as follows:

1. "Packed On" or (Pack Date)—The date of manufacturing, processing, or final packaging.
2. "Sell By" or (Pull Date)—The last day a retail store may offer the food for sale. This date allows the food shopper a reasonable amount of time to store and use the product in the home, even if bought on the pull date.
3. "Use By" or (Quality Assurance Date)—The date after which the peak quality of the food product begins to lessen, but product may still be used.

[1] Food Processors and Open Date Labeling, National Food Situation NFS 155, Feb. 1976 and Food Retailers and Open Date Labeling, National Food Situation, NFS 156, May 1976.

4. "EXP" or (Expiration Date)—The date which marks either the end of the product's useful life or the last day it should be used. This date may also be used interchangeably with the pull date for some products. Thus, respondents could correctly select either meaning for "EXP."

Shopper Interpretation of Open Dates

The arbitrary use of several open date prefixes on products by food processors and retailers could cause misconceptions on the part of shoppers and reduce the effectiveness of this information aid. In order to determine shoppers' knowledge of the prefixes, food shoppers were asked to indicate what the four different date prefixes meant to them by selecting from a list of possible meanings. They were not limited to one meaning for a particular date, but few picked more than one. The following table shows the shoppers' interpretations.

Shoppers' knowledge of the four date prefixes varied considerably. A large majority correctly interpreted pack and pull dates. The prefixes "Packed On" and "Sell By" were correctly interpreted by 77 percent and 62 percent of the food shoppers, respectively. But 13 percent of the shoppers, primarily the older or less educated, didn't know or were not sure of the meaning of a pack date. The commonly used pull date was misinterpreted most often by shoppers over 35 years of age, with incomes under $10,000 a year, and those without a high school education. These shoppers were evenly divided on misinterpretations: 12 percent indicated the product shouldn't be used after the date, 12 percent believed quality deterioration occurs after the date, and 10 percent believed the food is unsafe to eat. The male shopper was less likely to know the correct interpretation.

Food shoppers are apparently less knowledgeable of the "EXP" and "Use By" prefixes because these dates were frequently misinterpreted. Eighty percent of the total number of shoppers gave incorrect definitions for "Use By." Among those who misinterpreted the date, 46 percent thought it meant the last day the product should be used and 21 percent indicated the food was unsafe to use after the date. These shoppers were typically under 50 years of age and with a high school or college education. The older, less educated were more inclined to confuse a "Use By" date with a "Pull" date.

Even with two possible correct choices for the "EXP" or expiration date, the majority still picked an incorrect answer. Thirty-six percent said it meant that the product was unsafe to eat after the date had passed and 16 percent indicated it was a quality assurance date. Fourteen percent of the shoppers, primarily the older or less educated, were not sure or did not know what this date meant more often than for any of the other three dates. Respondents who were more apt to say "don't know" or "not sure" were over 65 years of age, and those with less than a high school education. Nearly 40 percent of the shoppers did, however, give the correct interpretations for "EXP"—28 percent called it an expiration date and 10 percent a pull date.

The survey results essentially confirm that almost all groups of shoppers are experiencing difficulty in properly interpreting one or more of the open date prefixes. One of the most serious misinterpretations by a significant number of shoppers is that open dates represent the last day a food should be used or is safe to eat.

Use of Open Dates

Although some shoppers are confused about the meaning of open dates, 90 percent look for open dates always or some of the time. Shoppers over 65 and those with little education are less likely to look or never look. Male shoppers are more apt to say they never look than female shoppers.

Food shoppers were much more concerned about dates on some products than others. Milk was, by far, the one food item which most shoppers said they always looked for the date—about one-half of the shoppers said they always look for the date on bread and other baked goods, meat, poultry, refrigerated dough products, and eggs.

Frequently, food shoppers were not sure if some foods even had dates. These items most often included poultry, meat, and eggs. Only a limited number of shoppers said they bought baby food

Interpretation of Date Prefixes by Food Shoppers

Date prefixes and types of dates	Correct Interpretations of date prefixes	Pull	Pack	Expirations	Quality assurance	Safety	Not sure/ don't know
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
"Use By" (Quality assurance)	21	14	3	46	---	21	4
"Sell By" (Pull)	62	---	2	12	12	10	7
"EXP" (Expiration)	28	10	1	---	16	36	14
"Packed on" (Pack)	77	2	---	2	3	4	13

Note: Adds to more than 100 percent because more than one answer could be given.

and yogurt, however, the majority of those who buy these items said they always look for the date on them.

Attitudes Toward More Open-Dated Products

The voluntary program of providing open dates on products has grown to a level where most shoppers are apparently satisfied. Only 35 percent of the shoppers who look for dates indicated additional products should be open dated. Meat was the most frequently mentioned by 30 percent of the group. Dairy products, canned foods, baked and dry goods were also mentioned but by only 10 to 13 percent of the shoppers in this group. Very few—only 3 percent—believe all food products should be open dated.

Since processors and retailers are still in the process of expanding the use of open dates, the desires of shoppers who want more products open dated are very likely to be met in the future.

Shopper Preferences for Types of Open Dates

Shoppers were provided with definitions for the four types of open dates and asked to select the one that would be most helpful to them for each of 10 preselected food products. Although many food shoppers had earlier misunderstood the meanings of the expiration and quality assurance dates, these were the two preferred dates by 70 percent or more of the shoppers. The older shopper was more inclined to want a quality assurance, while the younger preferred the expiration date.

The quality assurance date was by far the most popular choice for most food items. For 7 of the 10 products listed, the largest share of food shoppers said the quality assurance date would be the most helpful. These products included bread and baked goods, cottage cheese, eggs, meat, milk, poultry, and yogurt. The expiration date was the most popular choice for baby food, and an equal number of shoppers chose both the quality assurance and expiration date as the most helpful for cereal and refrigerated dough products.

Shopper Preference for Presentation Method

Food processors and retailers are using a variety of numeric and alpha-numeric combinations to present the month, day, and/or year on packages. All shoppers were presented with eight choices and asked to indicate the one date they liked and disliked the most.

Almost 90 percent of the shoppers preferred one of three methods, depending on their age and education. A third of the shoppers, including many of the less educated and elderly, preferred the alpha-numeric combination providing complete identification of the month, day, and year; for example, March 22, 1976. Thirty percent, including the younger and better educated shoppers, preferred the numeric form with the year abbreviated to the last two digits 3 22 76. A third group of about 22 percent of the shoppers preferred the abbreviated alpha-numeric form; Mar. 22 76. Shoppers disliked any method where the year is not indicated or is indicated by only the last digit.

Food Shoppers' Preferences for the Open Date Presentation

Methods of presenting the open date	Method like most	Method liked least
	Percent	*Percent*
3 22 6	5	9
3 22 76	30	*
03 22	*	77
Mar 22 76	22	*
March 22, 1976	35	3
Mar 22 6	2	1
Mar 22	2	5
March 22	2	1
Other	2	3

*Less than 1 percent.

Problems with Open Dates

With the number of open date prefixes and meanings, presentation methods, and locations on packages used by processors and retailers, it was anticipated shoppers would have a number of complaints. About one quarter of the shoppers who look for dates—18 percent of all food shoppers—are encountering a variety of problems in the stores. These shoppers are generally the young, well educated, with family incomes greater than $15,000 a year. The major problems expressed were: (1) confusion on whether the letters and/or numerals on food packages are actually open dates, (2) confusion as to what some of the dates mean, (3) difficulty in reading the date, and (4) difficulty in finding the date on packages.

Adoption by food processors and retailers of a uniform presentation method for the date with a suitable descriptive prefix would eliminate most of these problems. Increasing the print size and standardizing the date location to a package top, gable, or label could solve the less important problems.

But the problems with open dates do not end in the store. Occasionally some food is spoiled before the date is passed. Of course this problem depends on whether the spoilage was due to improper handling before or after the purchase. This can be solved by providing adequate storage and handling instructions. In fact, two-thirds of the shoppers consider storage instructions to be very useful.

Other serious problems concern the shoppers who believe open dates are throwout dates and the

preference of some shoppers for types of open dates that are not used extensively by food processors and retailers. Since January 1975, 31 percent of the food shoppers who looked for dates on the food package have thrown out food because of the date.

Products thrown out were primarily refrigerated items that generally have a pull date. The foods most frequently thrown out were: fresh milk, cottage cheese, refrigerated dough products, and meat. These items, if handled properly, are good much longer than the date indicated. One means of reducing this waste is to have an explanation of the meaning of the date either on the label or at the display case in the store.

Relating the commonly used pull date with the shopper-preferred quality assurance or expiration date presents a difficult problem for food processors and retailers. Apparently, many shoppers or homemakers want to know with absolute certainty the date when a food product should no longer be used. But determination of this date is an almost impossible task because of the variability of factors that affect food after processing in food markets and in homes. Furthermore, the pull date offers the most comprehensible and effective means to control quality of perishable and semi-perishable food at retail since it indicates the date the product should be removed from the shelf.

FOOD SHOPPERS RATE USEFULNESS OF LABEL INFORMATION

In a recent survey of over 1,400 shoppers throughout the United States by the Economic Research Service, shoppers were asked to rate the usefulness of nine types of label information.

Survey results show that 90 percent of the shoppers believe prices and freshness or open dates on food packages are very useful. Less than 5 percent regard them as of little or no use.

Uniform names and descriptions of meat cuts in all stores are considered to be very useful by 70 percent of the shoppers, while 15 percent give the opposite opinion.

Slightly fewer shoppers believe ingredient information and storage instructions are very useful. About 65 percent believe they are, while 15 percent regard the information as not too useful.

Name of the food manufacturer, nutrition information, and unit pricing are three items that only slightly over half the shoppers believe to be very useful. Between 20 and 25 percent think they are of little or no use.

Drained weight information on foods packed in liquids is regarded as very useful by only 30 percent of shoppers. Almost 50 percent believe it would be of little or no use.

These are early results from a study currently underway by the Economic Research Service to determine information that would be helpful to consumers in making food purchasing decisions. Additional results will be released later this year.

Table 9 --Wholesale food price indexes and Wholesale Price Index, selected periods 1/
(1967=100)

Year and month	Farm products			Processed foods and feeds														
				Meats													Industrial commodities 7/	
	Eggs	Fresh and dried fruits and vegetables 2/	Total 3/	Beef and veal	Pork	Total	Poultry	Fish	Dairy	Processed fruits and vegetables 2/	Vegetable oil end products	Cereal and bakery products	Sugar and confectionary	Beverages 4/	Total 5/	All food 6/		All commodities
1960	122.4	99.0	97.2	95.1	86.6	91.8	116.2	81.4	86.1	92.8	88.7	88.1	90.1	92.8	89.5	92.1	95.3	94.9
1970	126.8	111.6	111.0	114.5	111.7	115.0	113.3	125.1	111.2	110.4	111.8	107.6	115.9	112.9	112.0	113.5	110.0	110.4
1971	100.8	120.1	112.9	124.1	99.5	114.1	112.4	137.0	115.4	114.5	121.1	111.4	119.2	115.8	114.3	115.5	114.0	113.9
1972	103.7	127.6	125.0	133.4	122.1	128.5	115.8	159.5	118.6	119.7	121.2	114.7	121.6	118.0	120.8	121.8	117.9	119.1
1973	165.7	168.1	176.3	163.6	160.5	163.4	177.2	190.8	131.1	129.6	143.6	134.4	132.3	121.7	148.1	146.9	125.9	134.7
1974	160.6	192.3	187.7	158.6	162.3	159.6	157.3	204.6	146.4	154.6	224.8	171.2	258.9	140.7	170.9	174.4	153.8	160.1
1975	159.8	183.7	186.7	176.3	214.7	188.7	184.1	218.7	155.8	169.8	211.5	178.0	254.3	162.4	182.6	186.0	171.5	174.9
January	168.7	174.9	179.7	148.2	183.7	161.9	169.7	193.1	148.3	171.2	247.2	182.3	358.2	162.6	186.4	188.4	167.5	171.8
February	162.4	174.6	174.6	142.7	181.8	159.0	170.5	206.5	148.5	170.9	239.5	183.6	347.3	162.2	182.6	185.6	168.4	171.3
March	166.3	163.8	171.1	143.7	180.4	159.0	164.6	203.2	148.6	169.5	231.1	181.9	303.0	162.2	177.3	180.4	168.9	170.4
April	140.0	183.4	177.7	167.7	181.9	171.6	165.9	208.3	148.9	170.8	223.1	179.1	280.1	161.7	179.4	181.9	169.7	172.1
May	145.5	183.1	184.5	189.4	201.7	189.8	175.1	216.8	149.6	171.0	215.5	176.2	239.6	161.0	179.0	182.4	170.3	173.2
June	137.9	206.7	186.2	202.3	206.5	199.3	186.5	217.5	150.5	170.9	206.7	174.4	217.8	160.4	179.7	184.3	170.7	173.7
July	139.7	208.6	193.7	201.0	231.4	208.0	208.9	225.2	153.2	169.4	203.8	176.7	228.4	159.4	184.6	189.8	171.2	175.7
August	156.7	179.6	193.2	186.5	241.0	203.4	195.3	224.9	156.3	168.6	207.9	175.8	243.2	161.6	186.3	189.0	172.2	176.7
September	174.4	182.6	197.1	192.7	250.0	209.3	196.5	229.5	160.8	168.4	197.7	177.0	219.4	162.5	186.1	189.7	173.1	177.7
October	158.4	183.3	197.3	183.7	255.5	209.1	202.6	231.0	165.6	169.3	191.1	177.6	208.3	165.1	186.2	189.1	174.7	178.9
November	175.8	179.0	191.7	174.7	239.0	198.3	195.8	228.1	168.1	169.0	190.4	177.0	207.6	165.1	182.6	186.0	175.4	178.2
December	192.3	190.3	193.8	183.0	223.9	196.0	177.7	240.7	171.3	168.5	184.0	174.6	199.1	165.4	181.0	185.2	176.1	178.7
1976																		
January	182.0	194.8	192.8	173.1	224.6	190.4	164.5	253.1	169.7	167.6	174.1	174.7	202.6	165.1	179.4	183.2	177.3	179.3
February	177.0	192.6	191.0	162.0	213.5	180.3	170.1	256.2	163.4	166.7	170.9	175.1	200.4	167.0	176.4	179.7	178.0	179.3
March	159.2	184.5	187.2	150.0	202.4	171.7	178.8	261.3	166.7	166.5	170.2	174.5	207.5	167.0	175.8	178.2	178.9	179.6
April	162.6	195.0	192.9	171.5	203.3	183.5	163.8	271.3	167.7	167.1	168.8	172.8	202.5	169.3	178.0	181.5	180.0	181.3
May	171.5	179.0	192.6	162.0	212.6	182.8	171.8	279.9	167.1	167.9	173.4	173.4	208.7	172.3	179.9	182.1	180.4	181.8
June	165.8	160.8	196.5	157.9	220.9	182.0	172.2	283.7	167.0	170.0	170.6	173.7	197.4	172.7	181.8	180.1	181.3	183.1
July	167.7	164.7	196.9	147.3	218.0	175.3	181.2	278.7	170.0	169.9	173.1	173.6	201.3	175.7	182.6	180.9	182.6	184.3
Seasonally adjusted																		
1975																		
January	149.6	173.5	177.9	150.3	177.2	160.4	179.9	189.1	147.7	171.4	249.7	---	365.1	---	185.3	---	---	---
February	164.2	161.4	170.2	137.3	174.6	153.8	173.9	201.6	148.1	171.6	239.0	---	348.7	---	180.3	---	---	---
March	160.4	160.0	168.1	139.9	187.6	160.5	156.1	202.7	146.8	170.9	230.0	---	303.0	---	175.7	---	---	---
April	146.4	172.4	179.3	167.2	197.5	176.9	175.3	208.7	148.2	171.0	226.5	---	282.4	---	182.0	---	---	---
May	170.7	167.5	184.5	185.7	214.2	193.4	176.9	217.9	149.9	170.7	218.1	---	238.9	---	180.3	---	---	---
June	154.6	190.4	181.7	154.8	217.0	197.9	189.6	225.4	152.0	170.2	209.2	---	214.2	---	178.1	---	---	---
July	154.4	205.5	193.7	189.0	218.6	198.2	191.5	226.9	153.5	169.7	207.1	---	227.3	---	183.9	---	---	---
August	160.6	194.8	190.7	184.6	228.5	196.5	190.0	229.2	158.0	168.3	205.8	---	239.6	---	184.5	---	---	---
September	160.3	208.5	198.9	191.0	240.6	203.4	181.5	230.5	161.6	168.7	192.5	---	217.7	---	186.3	---	---	---
October	159.0	200.5	203.2	192.1	247.9	211.3	201.4	232.6	165.3	169.6	186.3	---	207.9	---	187.7	---	---	---
November	171.2	178.5	198.0	192.8	244.4	209.0	197.5	225.3	167.9	167.5	188.1	---	209.1	---	186.5	---	---	---
December	166.9	200.3	196.4	195.3	226.5	205.6	195.8	236.2	170.8	168.0	187.2	---	201.5	---	181.0	---	---	---
1976																		
January	161.3	193.3	190.9	175.6	216.6	188.5	174.4	247.9	169.0	167.8	175.9	---	206.5	---	178.3	---	---	---
February	179.0	184.0	186.2	155.9	205.1	174.4	173.6	250.2	162.9	167.4	170.6	---	201.2	---	174.1	---	---	---
March	152.2	183.2	185.9	146.1	210.4	173.3	169.5	260.8	164.9	167.5	170.9	---	209.6	---	175.9	---	---	---
April	174.8	183.6	193.8	170.1	220.1	189.2	173.2	271.8	166.9	168.1	171.7	---	205.6	---	179.3	---	---	---
May	198.7	168.4	194.9	158.8	225.9	186.2	173.5	281.3	167.4	168.6	176.2	---	214.9	---	181.6	---	---	---
June	187.6	146.8	195.4	152.1	232.0	180.7	175.2	294.0	168.2	170.0	174.3	---	200.4	---	182.4	---	---	---
July	185.1	157.9	183.4	138.4	205.8	167.1	166.1	281.0	171.2	170.2	174.1	---	205.6	---	180.8	---	---	---

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices and Expenditures, Agricultural Economic Report No. 138, table 106. 2/ Includes potatoes. 3/ In addition to items listed separately, includes grains, livestock, live poultry, plant and animal fibers, milk, hay, hayseeds, oilseeds, and other farm products such as coffee beans, cocoa beans and tobacco. 4/ Includes alcoholic beverages. 5/ Includes animal fats and oils, crude and refined vegetable oils, manufactured animal feed, and miscellaneous processed foods in addition to items listed separately. 6/ All food includes all processed foods (omitting soft drinks, alcoholic beverages and manufactured animal feeds) plus eggs and fresh and dried fruits and vegetables from the farm products group. 7/ Prior to 1967, includes manufactured animal feeds, soft drinks, and alcoholic beverages. 8/ Meats, poultry, and fish and all food are computed by ERS.

Bureau of Labor Statistics

Table 10 -Retail food price indexes and Consumer Price Index, selected periods 1/
(1967=100)

Year and Month	Food at home																		
	Meats			Poultry	Fish	Eggs	Dairy products 3/	Fats and oils 4/	Fruits and vegetables			Cereal and bakery products	Sugar and sweets	Beverages	Total	Food away from home	All food	Consumer Price Index less food	Consumer Price Index 5/
	Beef and veal	Pork	Total 2/						Fresh	Processed	Total								
1960	92.1	81.7	87.2	106.9	85.0	113.2	88.4	---	84.6	92.9	88.3	87.1	90.1	91.5	89.6	81.4	88.0	88.8	88.7
1970	119.5	115.9	117.6	108.4	118.0	125.6	111.8	105.8	116.3	109.2	113.4	108.9	115.1	117.4	113.7	119.9	114.9	116.7	116.3
1971	124.9	105.0	116.7	109.0	130.2	108.4	115.3	115.4	121.0	116.2	119.1	113.9	119.3	121.6	116.4	126.1	118.4	122.1	121.3
1972	136.6	121.6	129.2	110.4	141.9	107.7	117.1	116.6	128.0	120.5	125.0	114.7	120.9	121.3	121.6	131.1	123.5	125.8	125.3
1973	163.8	161.7	161.1	154.8	162.8	160.2	127.9	126.4	150.8	130.2	142.5	127.7	128.3	130.2	141.4	141.4	141.4	130.7	133.1
1974	168.5	161.0	164.1	146.9	187.7	160.8	151.9	179.4	162.6	170.6	165.8	166.1	195.2	155.6	162.4	159.4	161.7	143.7	147.7
1975	170.0	196.9	177.9	162.4	203.3	157.8	156.6	198.6	166.1	178.3	171.0	184.8	246.2	178.9	175.8	174.3	175.4	157.1	161.2
January	158.5	170.0	161.9	152.8	195.7	172.6	155.2	214.7	153.6	178.3	163.5	185.3	281.0	175.3	171.4	169.0	170.9	151.8	156.1
February	156.6	169.6	160.9	152.0	197.2	172.1	155.6	214.9	159.2	177.9	166.7	187.3	273.9	177.0	172.0	170.5	171.6	153.0	157.2
March	153.3	170.5	159.7	151.8	197.1	153.5	155.4	213.1	159.9	178.7	167.4	189.1	269.5	177.8	171.4	171.3	171.3	153.9	157.8
April	154.6	170.0	160.2	148.9	197.3	158.2	154.8	209.7	160.9	178.2	167.8	188.9	255.7	178.0	171.0	172.2	171.2	154.9	158.6
May	166.4	175.6	167.9	149.8	199.1	144.6	153.6	203.0	164.7	175.4	169.0	187.0	246.0	175.3	171.6	172.8	171.8	155.6	159.3
June	176.6	187.9	177.8	157.7	200.4	137.2	153.3	195.8	179.0	175.0	177.4	185.2	236.8	174.9	174.9	173.1	174.4	156.6	160.6
July	186.4	204.9	188.5	172.8	202.9	144.6	153.4	191.7	198.4	174.7	188.8	184.6	228.9	174.1	179.9	174.2	178.6	157.6	162.3
August	182.5	214.3	190.4	174.3	205.1	151.1	154.3	189.3	180.0	174.8	177.9	182.6	236.0	175.1	179.0	175.3	178.1	158.3	162.8
September	176.7	222.4	190.5	177.2	208.1	163.9	156.3	189.7	161.6	176.1	167.4	181.6	238.6	177.9	178.2	176.5	177.8	159.5	163.6
October	178.3	230.9	194.3	171.6	210.6	159.3	159.4	188.8	156.1	179.6	165.5	181.6	235.0	183.7	179.3	178.0	179.0	160.4	164.6
November	175.3	227.5	192.4	171.1	211.7	160.1	162.8	187.1	158.2	184.3	168.7	181.9	228.0	188.1	180.0	179.2	179.8	161.5	165.6
December	174.7	219.6	189.8	168.5	214.1	176.4	165.5	185.9	162.1	187.0	172.1	182.2	225.7	190.1	180.9	180.0	180.7	162.1	166.3
1976																			
January	174.9	210.1	186.8	164.5	216.1	182.8	168.2	182.4	163.8	187.3	173.3	182.0	224.5	191.1	180.8	180.9	180.8	162.6	166.7
February	168.3	208.5	182.8	159.8	219.2	184.9	168.5	177.4	164.4	186.4	173.2	181.1	224.0	191.7	179.6	181.9	180.0	163.4	167.1
March	164.7	204.3	179.6	157.7	219.3	160.4	167.9	175.0	165.2	186.1	173.6	180.6	222.4	193.0	177.7	182.8	178.7	164.2	167.5
April	160.8	200.0	176.6	158.0	222.3	159.4	167.9	171.7	174.7	185.4	179.0	180.2	221.1	198.0	178.1	183.8	179.2	165.0	168.2
May	167.1	201.9	180.6	155.3	225.1	154.5	167.4	170.6	171.7	183.3	176.4	180.8	219.5	203.3	178.8	184.8	180.0	166.0	169.2
June	166.5	205.0	181.6	160.7	226.3	152.6	167.9	170.4	173.6	181.3	176.7	181.3	219.3	208.7	179.7	185.6	180.9	167.0	170.1
July	166.9	208.7	182.9	161.9	227.9	164.1	168.0	169.7	175.0	180.9	177.3	180.9	217.9	216.3	180.9	186.9	182.1	167.9	171.1
	Seasonally adjusted																		
1975	170.9	196.7	177.8	162.3	203.3	157.7	156.6	198.6	166.1	178.3	171.0	184.8	246.1	178.9	175.8	174.3	175.5	---	161.3
January	162.6	169.5	164.1	156.0	195.8	158.0	154.8	213.7	160.8	178.1	167.2	185.3	280.3	175.9	171.9	169.0	171.3	---	156.6
February	157.0	167.2	160.5	154.4	196.7	158.6	153.9	214.2	162.3	177.1	167.8	185.9	270.5	177.3	171.1	170.9	171.1	---	157.3
March	149.7	168.8	156.8	151.9	196.5	151.9	153.8	211.0	160.4	177.5	167.2	187.0	265.6	178.2	170.3	171.8	170.6	---	157.9
April	153.7	174.2	160.3	149.5	196.8	161.0	153.6	208.4	158.8	176.2	166.4	187.2	253.8	177.9	170.6	172.4	171.0	---	158.7
May	167.6	185.6	172.1	154.6	198.4	157.6	153.0	203.6	159.4	174.9	165.7	186.0	246.9	175.4	172.3	173.1	172.5	---	159.5
June	178.2	194.2	182.1	159.4	200.5	156.9	153.8	199.3	163.4	175.1	168.7	186.1	239.1	174.9	174.9	173.4	174.6	---	160.6
July	183.9	205.6	185.7	168.1	203.3	160.3	155.5	196.8	178.9	175.7	179.1	186.3	231.0	173.9	178.6	174.5	177.8	---	162.2
August	177.4	209.1	186.9	168.6	206.8	155.5	156.9	192.6	169.8	176.6	172.9	185.4	239.9	174.9	178.1	175.3	177,5	---	162.8
September	172.3	214.6	186.7	167.3	209.5	155.0	158.2	190.7	170.1	177.1	172.3	183.8	240.5	177.4	178.4	176.4	178.0	---	163.5
October	178.6	224.3	192.1	169.8	211.5	155.8	160.1	186.7	168.2	181.0	173.1	182.3	236.1	182.9	180.2	177.5	179.6	---	164.5
November	178.7	225.2	193.3	172.7	210.8	159.2	162.3	184.0	168.0	184.4	174.3	181.7	228.0	188.1	181.2	178.6	180.6	---	165.5
December	180.8	222.5	193.7	175.4	213.2	163.5	164.1	182.9	173.8	186.7	177.8	180.6	222.4	190.8	182.1	179.5	181.6	---	166.4
1976																			
January	179.4	209.5	189.3	168.0	---	167.2	167.7	181.5	171.5	187.1	177.2	182.0	---	---	181.4	180.9	181.2	---	167.1
February	168.8	205.4	182.4	162.2	---	170.4	166.7	176.9	167.6	185.7	174.2	179.7	---	---	178.6	182.4	179.4	---	167.3
March	160.8	202.3	176.3	157.9	---	158.7	166.2	173.3	165.7	184.8	173.4	178.6	---	---	176.5	183.4	177.9	---	167.6
April	159.8	204.9	176.8	158.6	---	162.2	166.6	170.7	172.5	183.2	177.4	178.6	---	---	178.1	184.0	178.9	---	168.3
May	168.2	213.4	185.2	160.3	---	168.5	166.7	171.1	166.2	182.8	172.9	179.9	---	---	179.5	185.0	180.6	---	169.3
June	168.0	212.0	186.1	162.5	---	174.6	168.4	173.5	158.5	181.5	168.0	182.2	---	---	179.8	181.0	181.0	---	170.1
July	164.6	209.3	180.2	157.5	---	181.9	170.2	174.2	157.8	182.0	168.2	182.5	---	---	179.8	187.1	181.2	---	170.9

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices, and Expenditures, Agricultural Economics Report No. 138, July 1968. 2/ Beef, veal, lamb and mutton, pork, and processed meat. 3/ Includes butter. 4/ Excludes butter. 5/ Seasonally adjusted series derived by ERS.

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NEW PUBLICATIONS

CONVENIENCE FOODS FOR THE HOTEL, RESTAURANT, AND INSTITUTIONAL MARKET: THE PROCESSOR'S VIEW, by Harold R. Linstrom and N. Seigle, AER No. 344. Request from USDA, Division of Information, Rm. 0054, South Building, Washington, D.C.

ECONOMIC EFFECTS OF THE U.S. FOOD STAMP PROGRAM, Calendar Year 1972 and Fiscal Year 1974, by Paul E. Nelson, Jr. and John Perrin, AER No. 331. Request from USDA, Division of Information, Rm. 0054, South Building, Washington, D.C.

HOUSEHOLD CONSUMPTION BEHAVIOR: UNDERSTANDING, MEASUREMENT AND APPLICATIONS IN POLICY-ORIENTED RESEARCH, by Alden C. Manchester. Paper presented to Allied Social Science Association for the American Journal of Agricultural Economics. Request from USDA, ERS-NEAD-CEDA, Rm. 260, GHI Bldg., 500 - 12th Street, S.W., Washington, D.C. 20250.

RESULTS FROM THE 1976 USDA NATIONAL SURVEY ON HOME GARDENING, by Evelyn Kaitz. Speech for American Seed Trade Association. Request from ERS-NEAD-CEDA, Rm. 260, 500 - 12th Street, S.W., Washington, D.C. 20250.

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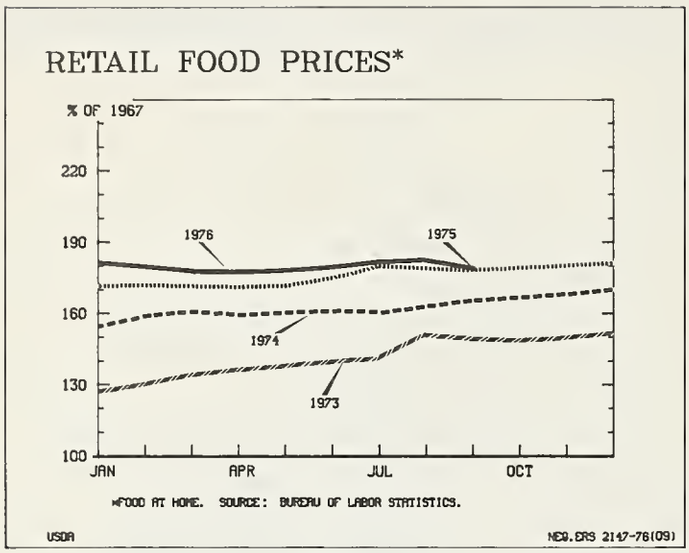

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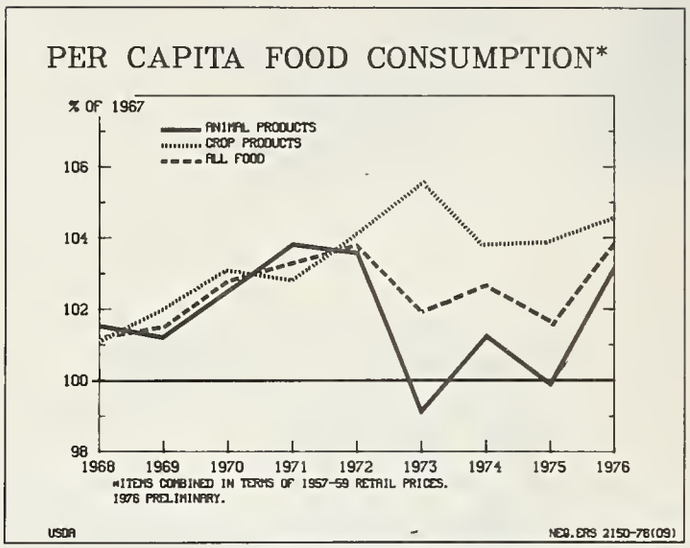

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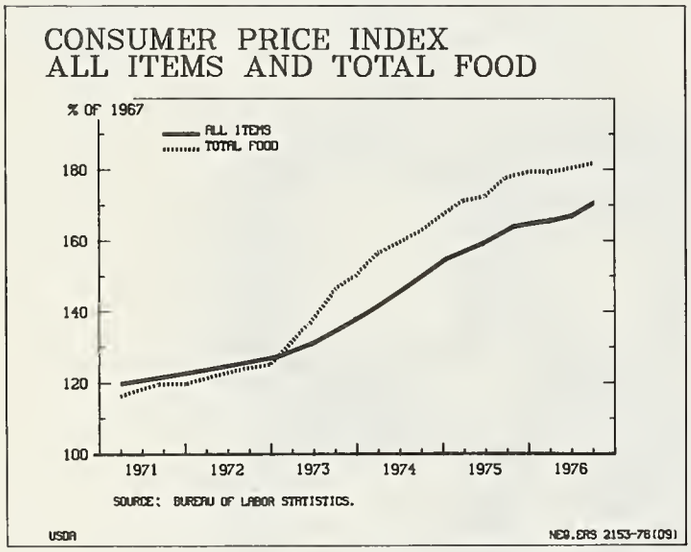

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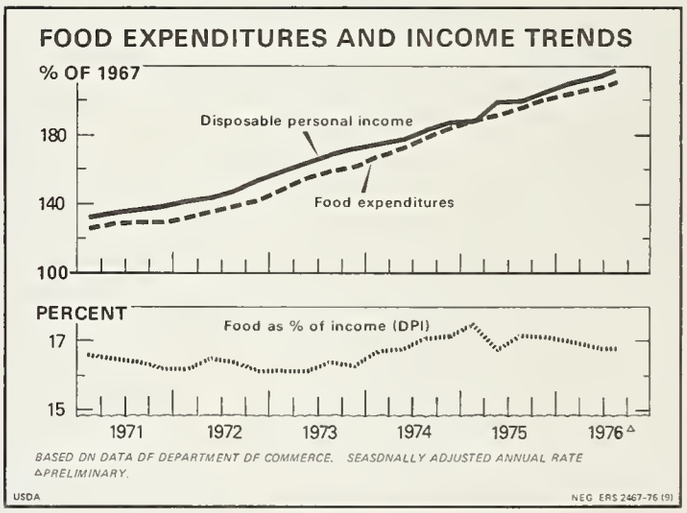

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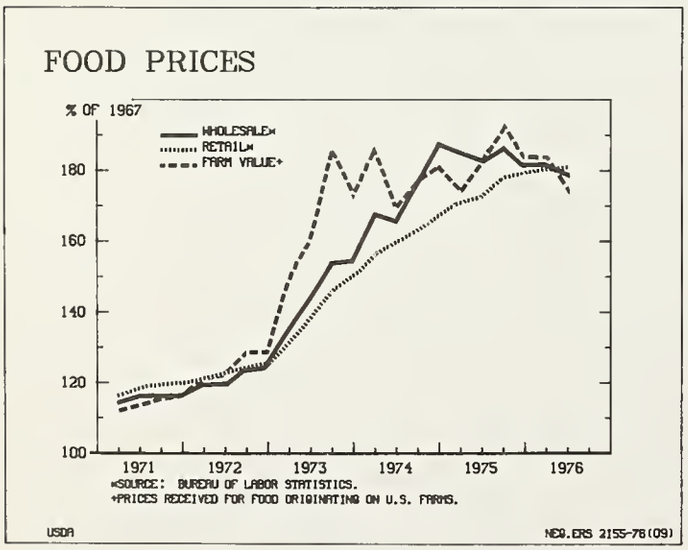

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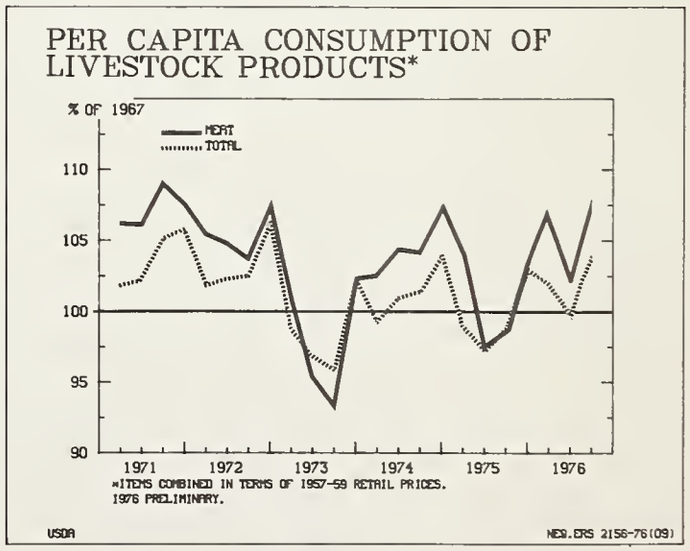

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NATIONAL FOOD SITUATION

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Approved by
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and Summary released
November 2, 1976

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• • •

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SUMMARY

Food Prices Steady this Fall—Moderate Winter and Spring Advances Expected

Generally large food supplies are expected to hold retail food prices relatively steady through the closing months of 1976. As a result, yearend food prices may average only 1 or 2 percent above 1975. With year-to-year differences narrowing since the beginning of the year, retail prices for all of 1976 likely will average around 3 percent above 1975.

Fourth quarter prices at the grocery store may be down slightly from last summer led by lower prices for meat, poultry, and some fresh produce items. For all of 1976, food-at-home prices will average around 2½ percent above 1975. Meanwhile, prices for restaurant meals and snacks are expected to continue to climb with both yearend and annual average prices for 1976 likely to be up around 7 percent from 1975.

The farm value of U.S.-produced foods for all of 1976 is expected to average about 4 percent below a year earlier. Thus, increases in retail food prices this year mainly reflect wider farm-retail spreads as well as sharply higher prices for coffee and fishery products. Marketing spreads for USDA market basket foods in 1976 are expected to average around 5 percent above 1975, well under the increases of the previous 2 years and a little below the rate of inflation for other goods and services this year.

Large food supplies will continue to dampen food price rises during the first half of 1977. But strong consumer demand, rising marketing costs, and seasonal price increases for several food categories likely will result in moderate food price advances. Small winter increases may be mostly associated with fresh vegetables, coffee, and away-from-home eating. By spring, however, food price increases may be a little sharper, led mainly by meat, poultry, and fresh produce. Still, food prices for the first half of 1977 likely will average only about 2 to 4 percent above a year earlier, depending importantly on forthcoming supplies of meat and other animal products and the strength of consumer demand.

Widening farm-retail spreads are expected to contribute to the anticipated rise in food prices in the first half of 1977. Although spreads for both

beef and pork may narrow, increases are expected in spreads for other foods as marketing firms adjust prices to reflect increased costs.

The Consumer Price Index for food in the third quarter of 1976 averaged about 1 percent above the previous quarter and only about 2 percent above the third quarter of 1975. Food away-from-home prices averaged 7 percent above a year earlier, and climbed over 1½ percent above the previous quarter for the third consecutive quarter. Grocery store food prices rose about 1 percent from the spring quarter, and also averaged 1 percent above the third quarter of 1975.

The 1976 index of per capita food consumption likely will rise around 2 percent from 1975 and may about match the record high of 1972. This year's increase reflects more ample supplies but a stronger demand associated with improved domestic economic conditions. Most of the increase in consumption will be associated with a nearly 5-percent rise for red meats and a 9-percent increase for poultry. Consumption of fish and dairy products may be up slightly with egg consumption down about 1 percent. In the crop food categories, per capita vegetable oil consumption may be up about a tenth. Sugar use may rise about 5 percent from 1975's depressed level and fruit and vegetable consumption likely will be about unchanged from a year earlier. Declines are indicated for fresh potatoes and coffee.

Preliminary data indicate that total personal consumption expenditures for food neared the $200 billion annual rate in the third quarter of 1976. This was an increase of less than 1½ percent from the previous quarter and one of the smallest advances in recent years, mainly reflecting the slowing in food price increases. Spending for both food at home and food away from home rose at about the same pace. Compared to a year earlier, food spending averaged 7 percent higher. Spending for food at home was up about 5½ percent, while expenditures for food away from home rose at twice that pace, largely reflecting sharper price advances for this component of food expenditures.

Food expenditures as a percent of disposable income averaged 16.8 percent during the third quarter, the same as in the second quarter but down from 17.1 percent a year earlier.

Net utilization of farm food commodities (utilization exclusive of domestic feed and seed use for all farm food commodities) in 1976 may increase about 4 percent from 1975. The increase reflects a 3½-percent rise in domestic use and a 5-percent rise in exports. On the supply side, although net production may be down a little from 1975, stocks at the beginning of the calendar year were up about 17 percent and imports will likely be up slightly. Consequently, yearend stocks will probably increase slightly from 1975.

Virtually all of the decline in net production is associated with crop food commodities which were especially hampered by dry weather this summer. However, the opposite is true for livestock production which increased as a result of the greater feed use from last year's record crop production as well as the continued heavy slaughter of cows.

FOOD PRICES AND CONSUMPTION

Average retail food prices have been relatively stable this year, in contrast to the rapid increases which characterized the 3 preceding years. The Consumer Price Index for food in the third quarter of 1976 averaged 1 percent above the previous quarter and only 2½ percent above the third quarter of 1975. Grocery store food prices rose about 1 percent from the spring quarter, and averaged 1 percent above the third quarter of 1975. Food away from home prices averaged 7½ percent above a year earlier, and climbed over 1½ percent above the previous quarter for the third consecutive quarter. All items less food averaged 6½ percent above third quarter 1975 (table 1).

The small third quarter increase for food at home prices followed two consecutive quarterly declines. Retail prices for crop-related food products, although only 1½ percent above third quarter 1975, rose nearly 1½ percent from the second quarter with fresh fruits and coffee contributing most to the rise. Helping to steady retail prices were increases in the supply of meat and poultry products and seasonally ample supplies of most other foods. Livestock-related food products at retail averaged a seasonal 1½ percent above the previous quarter, but showed little change from the third quarter a year ago.

Among livestock-related foods, red meat prices remained unchanged from the second quarter, as declines for beef and other meats about offset a small increase for pork. Compared with a year earlier, red meat prices were about 5 percent lower with beef down a tenth, pork down 4 percent, and other red meats up about 4 percent. Retail poultry prices rose fractionally from the second quarter, much less than usual for this time of year, and were almost 9½ percent below the third quarter a year ago. Third-quarter egg prices jumped nearly 12 percent from the previous quarter and were about 14 percent above a year earlier. Dairy prices

Table 1--Consumer, wholesale, and farm price indexes, 1975-76
(1967=100)

Item	1975			1976			
	III	IV	Year	I	II	III	
						Index	Percent change from 1975 III
							Percent
Retail prices: 1/							
All goods and services (CPI)	162.9	165.5	161.2	167.1	169.2	171.9	5.5
All items less food	158.5	161.3	157.1	163.4	166.0	168.9	6.6
All food	178.2	179.8	175.4	179.8	180.0	182.0	2.1
Food at home	179.0	180.1	175.8	179.4	178.9	180.6	.9
Food away from home	175.3	179.1	174.3	181.9	184.7	187.8	7.1
Wholesale prices: 1/							
All commodities	176.7	178.6	174.9	179.4	182.1	184.2	4.2
Industrial	172.2	175.4	171.5	178.1	180.6	183.6	6.6
Farm products	194.7	194.3	186.7	190.3	194.0	192.3	-1.2
Processed food	190.5	187.4	187.1	179.7	181.6	178.3	-6.4
All food 2/	189.5	186.8	186.0	180.4	181.2	177.9	-6.1
Prices received by farmers: 3/	195	188	186	186	192	189	-3.1
Crops	208	193	201	193	201	207	-.5
Livestock and products	183	185	172	181	185	175	-4.4
Market basket of U.S. farm food: 4/							
Retail cost	177.6	177.9	173.6	176.7	175.3	176.0	-.9
Farm-retail spread	163.5	168.9	165.3	172.5	170.4	178.9	9.4
Farm value	199.8	192.3	187.0	183.4	183.2	174.2	-12.8

1/ Department of Labor, Bureau of Labor Statistics.
2/ All food includes all processed foods plus eggs and fresh and dried fruits and vegetables from the farm products group.
3/ Statistical Reporting Service.
4/ Economic Research Service.

rose only 1 percent this summer, but averaged nearly a tenth above a year earlier due to sharp increases last fall and winter. Fish prices continued to climb with the third quarter average about 12 percent above a year earlier.

Changes in retail food prices, third quarter, 1976

Item	From second quarter 1976	From third quarter 1975
	Percent	*Percent*
Meat	.3	-5.1
Poultry	.3	-9.4
Fish	2.6	12.2
Dairy products	1.1	9.5
Eggs	10.7	13.6
Fats and oils	-.5	-10.6
Fruits and vegetables	-1.1	-1.4
Sugar and sweets	-1.4	-7.5
Cereal and bakery products	-.2	-1.3
Beverages	9.4	26.6
Other preparations	.3	4.8
Food at home	.1	.9
Food away from home	1.7	7.1
All food	1.1	2.1

Among crop-related foods, beverage prices jumped almost 10 percent from the second to the third quarter, largely due to coffee, and were over a fourth above a year ago. Prices for fats and oils and sugar products registered further small declines and averaged well below year-earlier levels. Fresh fruit prices rose seasonally during the summer but averaged nearly 3 percent below a year earlier. Meanwhile, prices for fresh vegetables and potatoes declined seasonally and averaged nearly 4 percent below the third quarter of 1975.

Wholesale Food Prices Lower

The Wholesale Price Index for all foods in the third quarter averaged almost 2 percent below the second quarter. Compared with the third quarter of 1975, the all-food index averaged about 6 percent lower while industrial products averaged 6½ percent higher. The quarterly decrease for the all-foods WPI was due to sharply lower prices for red meats, dairy, and sugar although some offset was provided by higher prices for poultry, eggs, and coffee.

Food Consumption Rebounds

For all of 1976, the index of per capita food consumption will rise around 2 percent from 1975 and may about match the record high of 1972. This year's increase mainly reflects more ample supplies and stronger demand associated with improved domestic economic conditions. Most of the increase will be associated with a nearly 5-percent rise for red meats and a 9-percent increase for poultry. Fish consumption may be about 2 percent higher with dairy product use up slightly and egg consumption down about 1-percent from last year.

Per capita food consumption indexes, seasonally adjusted

Period		Total livestock	Meat
		1967=100	
1974	I	101.1	102.3
	II	102.1	106.5
	III	101.1	104.1
	IV	101.3	105.5
1975	I	100.9	104.3
	II	98.4	100.2
	III	98.2	98.7
	IV	100.4	101.9
1976	I	103.6	107.0
	II	101.0	104.1
	III[1]	103.6	107.6

[1] Preliminary.

In the crop food categories, vegetable oil consumption may be up about a tenth. Sugar use may rise about 5 percent from 1975's depressed level and fruit and vegetable consumption likely will be about the same as a year earlier. Declines are indicated for fresh potatoes and coffee (table 2).

Large Domestic Supplies to Continue to Dampen Food Prices Increases

Retail food prices are expected to remain relatively steady through the remainder of this year as large supplies and relatively low prices for meat, poultry, and some fresh produce items offset further price increases for fish, coffee, and away-from-home meals and snacks. As a result, the all food average at yearend may be only 1 or 2 percent above a year earlier. With year-to-year differences narrowing since the beginning of the year, retail prices for all of 1976 may average around 3 percent above 1975.

Higher prices for food away from home will account for much of the 1976 average food price increase. Prices for restaurant meals and snacks have climbed steadily, with both yearend and annual average prices likely to be up 6 to 7 percent from 1975.

Grocery store food prices have been remarkably stable on the average throughout 1976. Fourth quarter prices may dip slightly from the summer and show little change from a year earlier. For all of 1976, food at home prices may average around 2½ percent above 1975.

The farm value of a market basket of U.S. farm-produced foods, which decreased in the third quarter, is expected to continue decreasing in the fourth

Table 2--Per capita food consumption indexes, 1967-76 1/
(1967=100)

Selected years	Meat	Poultry	Fish	Eggs	Dairy products 2/	Fats and oils			Fruits 3/		
						Animal 2/	Vegetable	Total	Fresh	Processed	Total
1967	100	100	100	100	100	100	100	100	100	100	100
1968	103	99	102	99	101	103	104	103	98	97	97
1969	102	103	102	98	100	95	110	105	98	102	100
1970	104	108	109	99	99	90	116	107	101	103	102
1971	107	109	105	97	99	90	113	105	98	106	102
1972	105	113	113	95	100	84	122	109	94	105	100
1973	98	107	119	91	99	78	127	110	93	110	102
1974	105	109	112	89	98	76	124	107	98	106	102
1975	101	106	111	86	99	76	125	108	103	113	108
1976 6/	106	115	113	85	100	69	134	111	102	112	107

	Vegetables 4/			Potatoes and sweetpotatoes		Cereal products	Sugar and sweeteners	Coffee, tea, and cocoa	All food		
	Fresh	Processed	Total	Fresh	Processed				Animal products	Crops 5/	Total
1967	100	100	100	100	100	100	100	100	100.0	100.0	100.0
1968	99	104	100	101	106	101	103	100	101.5	101.1	101.2
1969	99	104	101	94	118	101	104	97	101.2	102.0	101.5
1970	100	104	101	91	121	98	106	94	102.5	103.1	102.8
1971	99	105	101	87	124	99	106	92	103.8	102.8	103.3
1972	99	108	102	89	123	98	108	98	103.6	104.1	103.8
1973	100	113	104	82	126	98	110	96	99.1	105.3	101.9
1974	100	111	104	78	129	96	105	91	101.7	103.4	102.5
1975	100	109	104	88	131	97	100	87	99.8	104.0	101.7
1976 6/	101	110	104	83	126	97	103	86	103.2	104.8	103.9

1/ Civilian consumption only. Quantities of individual foods are combined in terms of 1957-59 retail prices. 2/ Includes butter. 3/ Excludes melons and baby food. 4/ Excludes soup, baby food, dry beans and peas, potatoes, and sweetpotatoes. 5/ Includes melons, dry beans and peas, nuts, soup, and baby food in addition to groups shown separately. 6/ Preliminary.

quarter as large supplies of most food commodities become available. In total, the farm value for the market basket in the fourth quarter may average around 9 percent lower than a year earlier. However, movements in farm values may vary greatly among major products. For example, returns to farmers for meat animals in the fourth quarter may average a fifth lower than a year earlier, mainly reflecting increased supplies of both cattle and hogs. In contrast, farm values for milk, eggs, and oilseed products are expected to be up sharply this fall from a year earlier. However, farm prices for most other foods may change relatively little.

For all of 1976, the farm value of the market basket may average around 4 percent below the 1975 average as output of crop and livestock products totals near record highs. As a result, increases in food prices this year reflect wider farm-retail spreads as well as sharply higher prices for coffee and fishery products. The marketing spread may average around 5 percent above 1975, depending on movements in farm prices for the remainder of the year, the cost-push created by the continued rise in wage rates, and increases in other operating expenses for food marketing firms.

Fourth quarter per capita meat consumption may be up slightly from the previous quarter and about 3 percent from a year earlier, mainly reflecting increased pork output. Poultry consumption will likely show a strong seasonal rise this fall as large turkey supplies move to market and broiler output remains above a year earlier. Fourth quarter poultry consumption may be 5-6 percent above 1975. Dairy product use may be up slightly with egg consumption about unchanged from last year.

Meat consumption is expected to remain near the fourth quarter level next winter but decline moderately during the spring. For the entire first half of 1977, meat consumption may average near its year-earlier level. Consumption of other animal products may be up slightly from the first half of this year.

Large supplies will continue to dampen food price rises during the first half of 1977; but strong demand, rising marketing costs, and seasonal price increases for several food categories likely will result in moderate food price advances. Small winter increases may be mostly associated with fresh vegetables and coffee. By spring, however, food prices may be rising a little more rapidly, led mainly by meat, poultry, and fresh produce. Still, food prices for the entire first half of 1977 likely will average only about 3 percent above a year earlier. If output is larger and demand increases are less than now anticipated, food prices may remain about steady at this fall's level and average around 2 percent above a year earlier. Conversely, smaller supplies and stronger demand would result in a more rapid rise with the average for the first half around 4 percent above a year earlier.

Widening farm-retail spreads for market basket foods are expected to contribute to the anticipated rise in food prices in the first half of 1977. Spreads for both beef and pork may narrow if cattle and hog prices strengthen as the year progresses. But increases in spreads for other farm foods are expected as marketing firms adjust prices and margins to reflect rising wage rates as well as increased costs of most other goods and services they purchase.

Commodity Review: Prices and Consumption

Meat—Commercial red meat production from January to September totaled 28.7 billion pounds, up 7 percent from a year earlier, with beef contributing the bulk of the increase. Commercial beef production during January through September was up almost 11 percent from the same period in 1975 to a record high. Record third quarter beef production resulted in summer per capita beef consumption of around 24 pounds (retail weight). July-September pork production was nearly 3 billion pounds or about 13 pounds per person (retail weight)—15 percent above the low third quarter 1975 level.

Per capita meat supplies are expected to increase further this fall and hold near that level during the winter. Although beef supplies may decline slightly, larger pork supplies likely will be more than offsetting. By spring, however, moderate declines in per capita supplies are likely for both beef and pork.

Retail beef prices have been trending lower since July 1975. The average price of Choice grade beef was $1.36 per pound for July-September down 20 cents from the same period a year ago. However, lower-quality beef prices have generally not paralleled changes in the Choice beef. The average retail price of hamburger has been relatively stable—nearly 90 cents a pound from May 1975 to September 1976. The average retail price of pork was $1.37 per pound for July-September, about 7 cents lower than in the same period a year ago.

Continued large beef and pork production, coupled with seasonal increases in turkey production and continued large year-to-year gains in broiler production, will maintain downward pressure on retail meat prices for the remainder of this year. Retail meat prices will probably trend steady to slightly lower for the remainder of 1976 and stay below 1975 levels. Increasing supplies of pork will keep pressure on retail pork prices into the early spring of 1977. Reductions in last summer's placements of cattle on feed from year-earlier levels should result in decreased beef availability during

the winter and spring of 1977, causing higher retail beef prices.

Dairy—Very strong summer and fall milk production resulted in large commercial dairy stocks and falling wholesale butter and cheese prices. The August-September price declines erased the jumps which occurred in June-July. This should result in lower fall and winter retail prices than were earlier expected.

During August-September of this year, heavy concentrate feeding led to 6-percent greater milk production than during the same period of 1975. The larger milk supplies resulted in butter output up a tenth and American cheese output up more than a third from 1975. Although the year-to-year increases in milk production may ease this fall and winter, milk output probably will remain well above a year earlier. Combined with large commercial dairy stocks (up more than a third from 1975's low levels as of September 1), this should result in ample supplies of milk and dairy products in coming months.

Large supplies have caused wholesale dairy product prices to fall from the high levels of early August and likely will result in fairly stable retail dairy prices this fall and winter. However, the recent wholesale price drops are not likely to result in significant declines in retail prices since the early summer rises had not been fully reflected at retail. However, some softening of retail prices of manufactured dairy products could occur, especially for butter. During the first half of 1977, retail dairy prices likely will average only slightly higher than 1976.

Total dairy sales remained strong this summer and January-August sales of milk in all dairy products were up almost 2 percent and the highest in a decade. Sales of cheese were up 8 percent from a year ago in July-August and easily set a new record. Fluid milk sales were about the same as last year as gains in sales of lowfat items offset declines in whole milk sales. Although butter sales remained below 1975, they were close to the 1970-74 average. Although sales to bulk users apparently have slackened, retail sales reportedly have improved somewhat from the poor levels of earlier this year, despite the continued wide difference in retail butter and margarine prices.

Poultry—Broiler production is running at a record pace this year and will continue to do so through the balance of 1976. Output of broiler meat through federally inspected plants in the first 9 months of this year was 14 percent above January-September 1975. The margin of increase over last year is expected to narrow this fall to only about 10 percent above 1975. Total output under federal inspection in 1976 will be a little over a billion pounds above the 8 billion pounds (ready-to-cook weight) last year.

Although many producers will be in a cost-price squeeze in late 1976 and early 1977, producers seem reluctant to slow down their expansion. Thus, broiler output may show a moderate increase in the first half of 1977.

Retail prices for frying chicken in the third quarter averaged about the same as the second but well below a year earlier. Chicken prices usually increase seasonally in the summer, but there was no rise this year because of the sharp increase in supplies of broilers and other meats. Prices will be seasonally lower this fall and may average below year-earlier levels in the first half of 1977.

Preliminary data indicate that consumption of chicken meat in January-August was around 29.3 pounds per person, almost 2½ pounds above the same period in 1975. Young chickens (mainly broilers) accounted for all the increase since consumption of other chicken was down slightly. Although consumption of chicken meat was sharply higher than last year, it did not advance as much as production because of some buildup in stocks and substantially higher exports of young chicken. Total consumption of chicken meat in 1976 is expected to be around 44 pounds per person, compared with 40.3 last year.

Turkey meat production has also advanced sharply this year. Slaughter through federally inspected plants in January-September was around a fifth above the same months of 1975. The margin of increase will narrow in coming months, but output this fall should be 6-8 percent above last year. Turkey producers are in a cost-price squeeze which is expected to lead to reduced output in the seasonally light production months of the first half of 1977.

The increased turkey output this year has led to a sharp buildup in cold storage holdings of turkey meat. Cold storage stocks at the beginning of this year trailed year-earlier levels by 80 million pounds, but by October 1, holdings were 47 million pounds above the same date in 1975. This increase in cold storage stocks, combined with the expected increase in slaughter, suggests total turkey supplies this fall may be up 8 to 10 percent from last year.

The New York wholesale price for 8-16 pound young hen turkeys during July-September averaged 48.5 cents per pound, almost 9 cents below a year earlier. Prices this fall may average in the 46 to 48 cents per pound range, compared with 56 cents in October-December 1975.

Retail prices for turkeys in July-September dropped slightly from the second quarter and were 3 percent below the third quarter of 1975. Turkey prices normally advance seasonally in the fall; however, the increase is expected to be minimal this year because of larger supplies of turkeys and other meats.

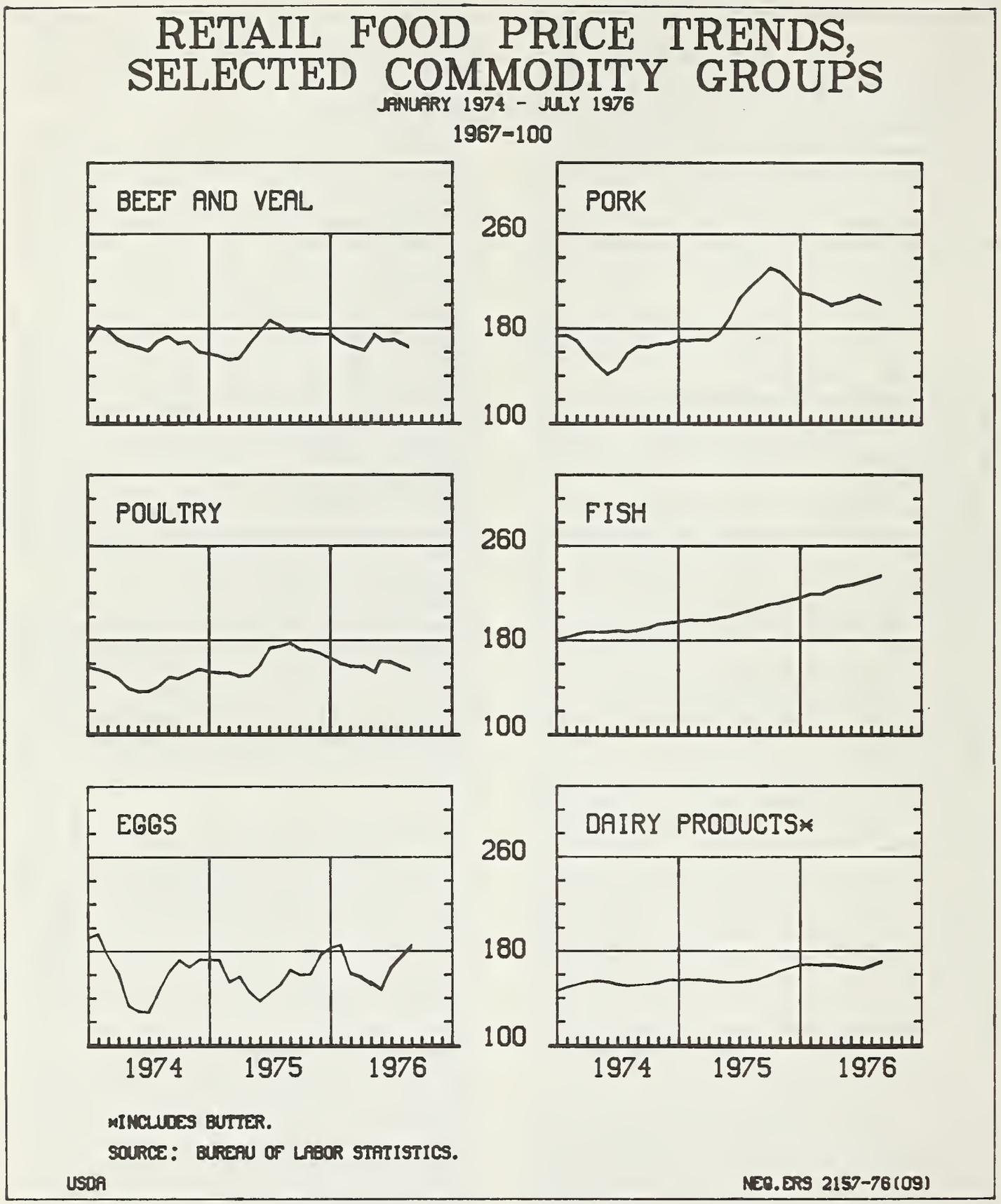
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - JULY 1976
1967=100
BEEF AND VEAL
PORK
POULTRY
FISH
EGGS
DAIRY PRODUCTS*
260
180
100
1974
1975
1976
*INCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2157-76(09)

Figure 7

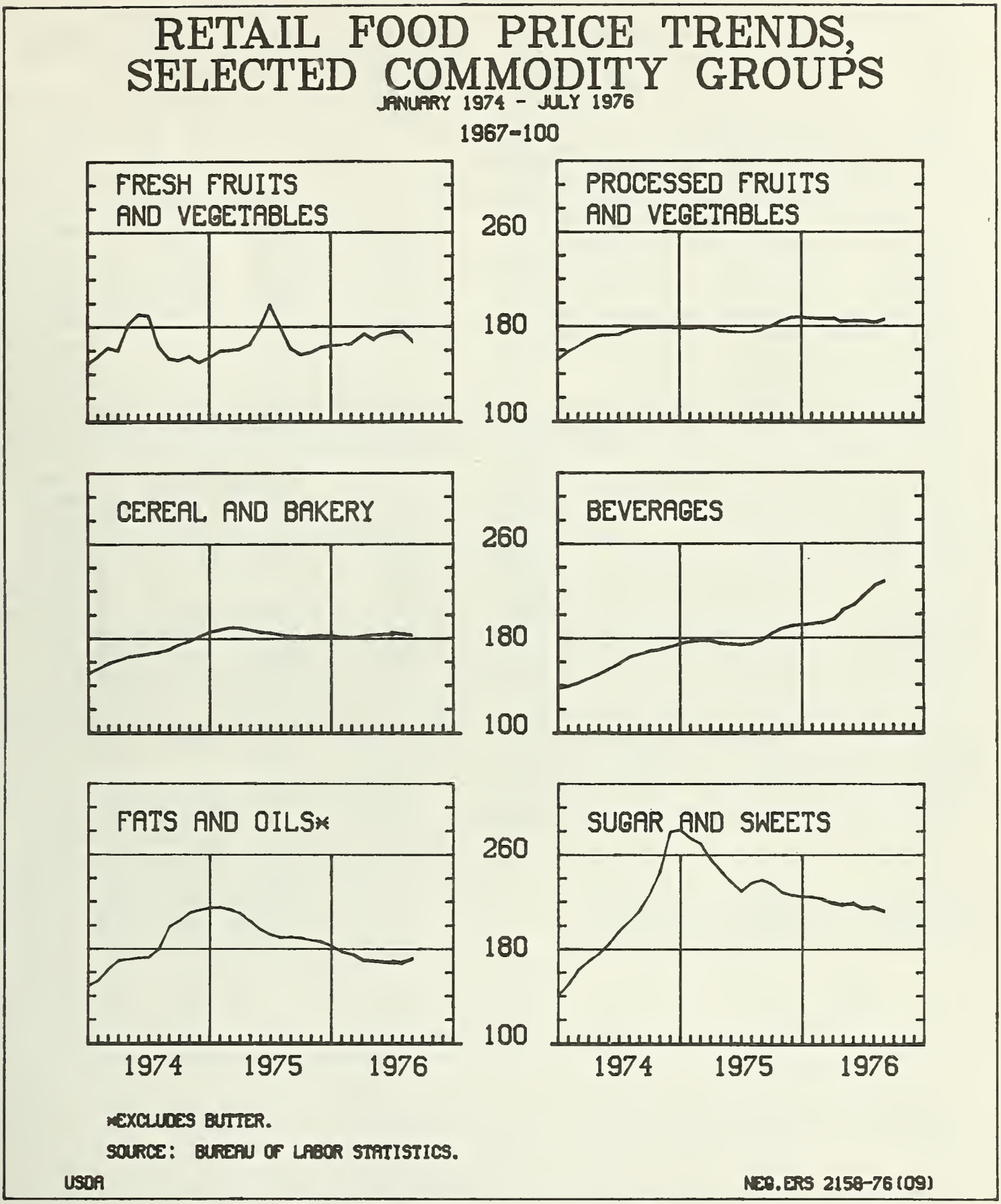
RETAIL FOOD PRICE TRENDS,
SELECTED COMMODITY GROUPS
JANUARY 1974 - JULY 1976
1967=100
FRESH FRUITS AND VEGETABLES
PROCESSED FRUITS AND VEGETABLES
CEREAL AND BAKERY
BEVERAGES
FATS AND OILS*
SUGAR AND SWEETS
260
180
100
1974
1975
1976
*EXCLUDES BUTTER.
SOURCE: BUREAU OF LABOR STATISTICS.
USDA
NEG. ERS 2158-76(09)

Figure 8

Consumption of turkey meat in January-August was about 5 percent above the 2.8 pounds per person in the same months of 1975. Total 1976 consumption is expected to be near the record 9 pounds per person registered in 1972. This would compare with 8.6 pounds in 1975.

Eggs—Egg production was above 1975 levels during February-July, but dropped slightly below in August-September because of a reduced rate of lay. However, the drop in the rate of lay is expected to be temporary and egg output should surpass year-earlier levels in coming months. This, along with a continued gain in layer numbers, likely will result in egg production registering around a 1-percent increase from 1975 levels this fall. Egg production is expected to continue 1 to 2 percent higher during the first half of 1977.

Egg prices have been strong this year and are expected to remain so during the remainder of 1976. Wholesale prices for Grade A large eggs at New York averaged a little over 62 cents a dozen during the first 9 months of 1976, almost 7 cents above a year earlier. Retail egg prices in the third quarter increased sharply from the seasonally low second quarter and were well above third quarter 1975 prices. Prices should advance although the relatively high third quarter prices and increasing egg supplies may limit the increase to less than usual this fall and winter. First half 1977 egg prices will decline seasonally from fall levels and may average near their January-June 1976 average.

Total egg consumption (shell eggs and the shell equivalent of egg products) in January-August was around 183 eggs per person, almost 2 eggs below last year. A small increase in the use of eggs for commercial breaking caused shell egg consumption to drop a little more than total egg consumption.

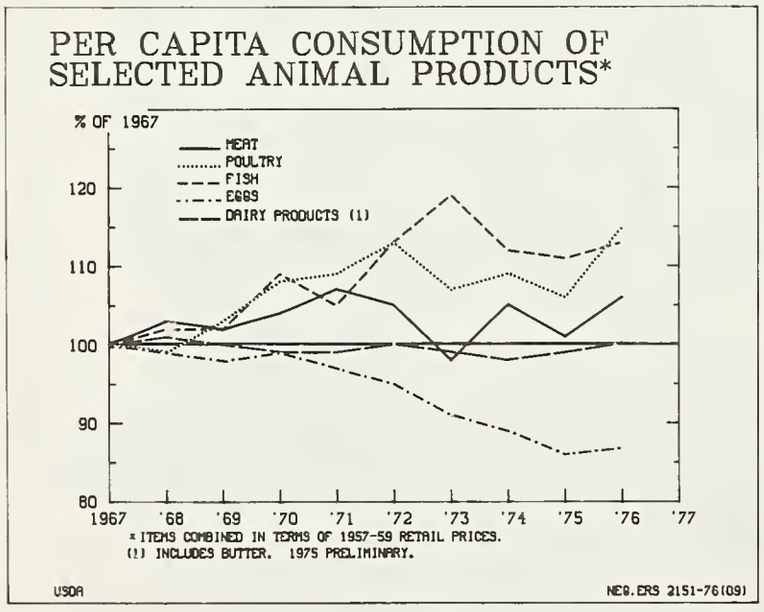

Figure 9

Total egg consumption for 1976 is expected to be down slightly from last year's 35.3 pounds (278 eggs, farm equivalent) per person.

Fish—Demand was strong for most major fishery products through the first three quarters of 1976 and supplies were generally above last year. Some species, however, continue in short supply, and increases in consumption have been limited accordingly. The CPI for fish in the third quarter averaged 11½ percent above a year-earlier. The market for fishery products continues to be supported by substantially higher sales in the food service sector, particularly fast food operations. Consumption per capita in 1976 likely will be about 12.5 pounds up from the 12.1 pounds consumed last year.

The outlook for the balance of this year and the first half of 1977 is for generally tighter supplies. Because quotas reportedly have been reached, catches of finfish, including cod, flatfish, haddock, and ocean perch, will be limited for the rest of the year. As a result, imports of these species will slow in the last quarter of this year and the early months of 1977. Despite recent gains in landings, shrimp supplies will increase only slightly above year-earlier levels because of the modest amounts currently in storage and the expected increased buying activity in world shrimp markets by the Japanese. In addition, catch regulations may limit landings of sea scallops, while supplies of clams, oysters, and blue crabs will be low. The only species which will record significantly greater supplies in the coming months will be salmon, tuna, and king crab.

Demand in the food service sector will continue to be strong on the basis of further gains in the economy and consumer incomes. Increases in consumption, however, will be limited for those products experiencing tight supplies, and prices will generally move up during the next 6 to 9 months.

Fats and Oils—During calendar 1976, per capita disappearance of edible food fats is expected to hit a new high of about 56 pounds, up over 2 pounds from 1975. The increase is due primarily to increasing use of vegetable oils. Use of shortening and cooking and salad oils is up sharply, along with a slight increase in the use of margarine. These products are made mainly from vegetable oils, particularly soybean and cottonseed oils. Disappearance of animal fats will be down. Butter and the direct use of lard will be down slightly from the previous year. However, use of lard in margarine and shortening may register a small increase. Relatively strong lard exports are also siphoning supplies from the domestic market.

The upsurge in disappearance of food fats this year follows 2 years in which use remained stagnant at about 53 pounds per person. Larger vegetable oil supplies at lower prices and an improved

Table 3--Livestock products: Per capita consumption indexes, quarterly, 1969-76 1/
(1967=100)

Year and quarter	Meat	Poultry	Eggs	Dairy products: Excluding butter	Dairy products: Including butter	Animal fats including butter	Total livestock products 2/
1969 I	102.9	85.2	99.4	98.2	98.7	100.7	99.3
II	99.5	97.3	97.0	102.8	102.2	88.1	99.7
III	102.7	106.9	96.9	100.6	100.1	95.6	101.9
IV	103.7	123.5	99.1	99.2	99.2	95.2	103.8
1970 I	101.5	91.8	98.9	98.9	98.9	99.4	99.4
II	100.8	102.1	96.5	100.4	99.4	83.7	99.9
III	104.8	113.2	97.2	100.2	99.7	84.3	103.1
IV	109.7	124.5	101.0	98.5	98.6	93.9	106.7
1971 I	106.2	92.8	98.2	99.0	99.0	98.8	101.8
II	106.1	100.7	96.4	100.2	99.3	83.7	102.3
III	109.0	113.0	95.2	100.5	99.5	88.2	105.2
IV	107.6	127.9	98.4	98.7	98.8	91.3	105.8
1972 I	105.4	98.0	98.7	99.7	99.2	89.1	101.9
II	104.8	108.4	93.3	101.0	100.0	79.8	102.3
III	103.7	115.7	92.9	100.6	99.7	82.4	102.5
IV	107.5	131.7	94.3	100.2	99.7	85.6	106.1
1973 I	100.9	95.6	92.4	99.7	99.2	82.5	98.8
II	95.3	101.7	91.5	100.7	99.8	78.8	96.8
III	93.3	107.1	87.6	100.3	99.3	75.7	95.9
IV	102.2	124.1	91.5	100.1	99.0	76.9	102.2
1974 I	102.5	99.0	90.5	99.1	97.7	73.7	99.3
II	104.4	108.0	89.5	98.7	97.4	74.0	101.0
III	104.2	108.6	87.6	100.3	99.4	78.5	101.4
IV	107.3	120.1	88.6	99.5	98.5	77.2	103.9
1975 I	104.5	91.2	86.6	97.9	97.6	82.6	99.1
II	98.2	101.8	83.7	99.8	98.8	77.2	97.3
III	98.2	107.8	85.6	101.1	99.6	69.6	98.5
IV	103.6	125.2	87.6	101.0	100.1	75.3	103.0
1976 I	107.2	101.5	85.6	100.5	99.1	73.7	101.9
II	102.0	109.6	83.7	100.2	98.8	70.6	99.9
3/III	107.7	117.2	83.7	102.4	100.4	63.8	103.9

1/ Civilian consumption only. Quantities of individual foods, measured in pounds equivalent to the form sold by retail food stores, combined in terms of average 1957-59 retail prices. 2/ Excludes fish and honey. 3/ Preliminary.

economy are factors encouraging heavier use. Third quarter fats and oils prices averaged 11 percent below a year ago, following six consecutive quarterly declines. Supplies of soybean oil—the major oil used in the domestic manufacture of food fat products—are at record levels. Also, heavy imports of palm oil and coconut oil—which this year are expected to total about 0.8 billion and 1.1 billion pounds, respectively—are contributing to the expansion. Although soybean oil supplies over the next year are expected to decline as a result of the smaller 1976 soybean crop, increasing lard and cottonseed oil production should be partially offsetting.

Crude soybean oil prices are averaging about a third below their 1975 levels. Prices during the first half of the year averaged around 16 cents per pound, down about 40 percent from the comparable period a year ago. However, in recent months prices have strengthened and in October averaged around 21 cents per pound. Prices are expected to remain relatively firm, reflecting the prospective tighter soybean oil supply situation. Soybean oil is the price-maker for the domestic food fats and oils market.

Peanuts are in ample supply and more than adequate to cover requirements for edible use. Their domestic use in all edible outlets will total around 1.9 billion pounds this year, up about 4 percent from a year earlier. On a per capita basis, this amounts to nearly 9 pounds (farmers' stock basis). Historically, edible use of peanuts has been increasing at about 3 percent per year. About a fourth of the 1976 peanut crop will be acquired by the Commodity Credit Corporation under the price support program.

Sugar and Sweets—Current prospects point to a significant increase in available supplies of sugar in the world. The current 1976/77 world sugar crop appears likely to be up 3 to 6 million short tons over last year's record 90-million-ton output (raw value). Since world consumption is expected to increase less than production, 1976/77 ending sugar stocks may be up significantly from 1975/76.

Ample sugar supplies have exerted downward pressure on sugar prices at all levels. Retail sugar prices fell 1 percent in the third quarter, following 5 previous quarterly declines, and averaged 7 percent below a year ago. Raw sugar prices moved lower during the late summer after holding relatively steady for most of the preceding year. Wholesale prices of refined sugar have followed the recent declines in raw prices. Retail sugar prices, after a lag, are also expected to follow declines in wholesale prices.

Sugar deliveries are running nearly 10 percent ahead of last year's reduced level as U.S. consumers respond to lower sugar prices. Per capita consumption is expected to increase 3 to 5 pounds over last year's low 90 pound level. To supply the additional sugar, both U.S. production and imports are up this year over last year's level.

Because recent sugar prices are so low that many sugarbeet and sugarcane producers are unable to operate profitably, the President raised the duty on imported sugar from 62.5 cents per cwt. to $1.875 per cwt. effective on September 21, as an interim measure. The U.S. price of raw sugar has not changed very much from the September 21 level of $10.75 per cwt. But with the increase in duty, there is now a larger differential between the U.S. and the world price, which has declined overall following the Presidential action. Barring some further Presidential or legislative action, raw sugar prices do not seem likely to change very much from current levels based on current world crop prospects. After the first of the year, early indications of the size of the 1977/78 crop may begin to impact on sugar prices.

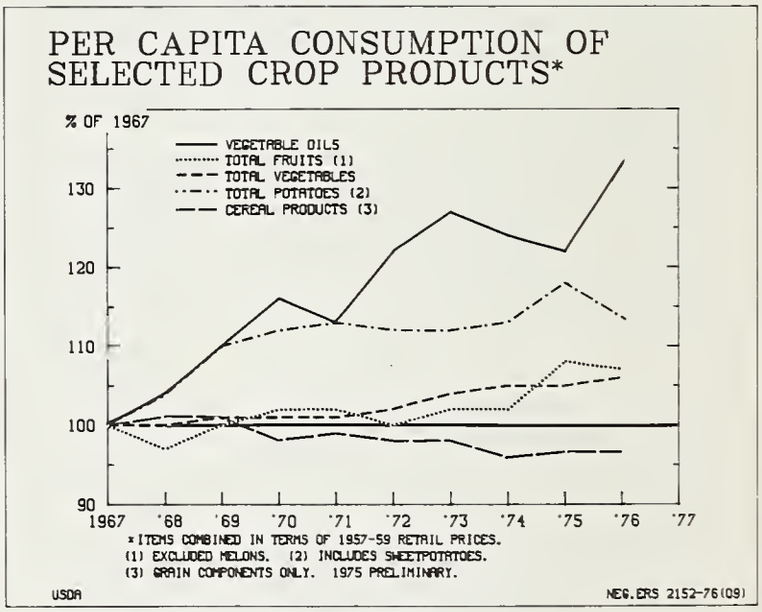

Figure 10

Cereal and Bakery—Larger supplies and lower prices for grains, vegetable oils, and sugar—major ingredients for this category of foods have resulted in small retail price declines during the past year. Prices during the third quarter of 1976 averaged about 2 percent below a year earlier.

With record or near record harvests of grain again this year, supplies will remain ample for both domestic and foreign markets. Although ingredient costs may continue as a moderating influence, retail prices are expected to advance moderately this fall and winter, mainly reflecting rising marketing costs.

Beverages—The 1976/77 world coffee crop is currently estimated at 62.1 million bags (132.3 pounds

Table 4--Civilian per capita consumption of major food commodities (retail weight) and civilian population, selected years 1/

Commodity	1960	1967	1973	1974	1975 5/	1976 forecast as percentage of 1975
			Pounds			Percent
Meats:						
Beef	134.2	145.1	142.3	152.2	145.3	105
Veal	64.3	78.8	81.1	86.4	88.9	107
Lamb and mutton	5.2	3.2	1.5	1.9	3.5	89
Pork (excluding lard)	4.3	3.5	2.4	2.0	1.8	89
	60.4	59.6	57.3	61.9	51.0	104
Fish (edible weight)	10.3	10.6	12.9	12.9	12.1	102
Poultry products:						
Eggs	42.4	40.7	37.3	36.6	35.3	99
Chicken (ready-to-cook)	27.8	36.5	40.7	41.1	40.3	109
Turkey (ready-to-cook)	6.2	8.6	8.5	8.9	8.6	105
Dairy products:						
Cheese	8.3	10.1	13.7	14.6	14.5	108
Condensed and evaporated milk	13.7	9.0	6.0	5.6	5.3	96
Fluid milk and cream (product weight)	321.0	303.0	293.0	288.0	291.2	101
Ice cream (product weight)	18.3	17.8	17.5	17.5	18.5	97
Fats and Oils--Total, fat content	45.3	49.4	54.3	53.2	53.3	104
Butter (actual weight)	7.5	5.5	4.8	4.6	4.8	90
Margarine (actual weight)	9.4	10.5	11.3	11.3	11.2	103
Lard	7.6	5.4	3.4	3.2	2.9	93
Shortening	12.6	15.9	17.3	17.0	17.3	107
Other edible fats and oils	11.5	15.2	20.8	20.3	20.3	107
Fruits:						
Fresh:	89.6	79.1	73.8	76.2	81.0	99
Citrus	32.5	30.6	26.4	26.5	28.6	99
Noncitrus	57.1	49.4	47.4	49.7	52.4	100
Processed:						
Canned fruit	22.6	22.6	21.3	19.8	19.1	103
Canned juice	13.0	11.7	15.9	14.7	14.7	101
Frozen (including juices)	9.1	10.1	11.2	11.3	12.6	97
Chilled citrus juices	2.1	4.4	5.3	5.5	6.0	108
Dried	3.1	2.8	2.6	2.5	3.3	70
Vegetables:						
Fresh 2/	96.0	90.8	92.4	93.6	93.3	101
Canned, excluding potatoes and sweetpotatoes	43.4	48.8	54.3	53.5	53.2	102
Frozen, excluding potatoes	7.0	9.0	10.6	10.2	9.6	99
Potatoes (including fresh equivalent of processed)	104.0	104.3	112.6	110.7	120.2	96
Sweetpotatoes (including fresh equivalent of processed)	6.5	5.3	4.7	5.1	5.0	100
Grains:						
Wheat flour 3/	118	112	109	106	107	100
Rice	6.	7.5	7.0	7.6	7.7	94
Other:						
Coffee	11.6	11.1	10.1	9.4	9.0	100
Tea	0.6	0.7	0.8	0.8	0.8	100
Cocoa	2.9	3.4	3.4	2.7	2.4	108
Peanuts (shelled)	4.9	5.7	6.6	6.4	6.8	101
Dry edible beans	7.3	6.9	6.5	6.7	6.4	98
Melons	23.2	20.3	19.7	17.2	17.5	108
Sugar (refined)	97.6	97.3	102.1	93.9	87.7	103
			Millions			
Civilian population 4/	178.1	195.3	208.1	209.7	211.4	101

1/ Quantity in pounds, retail weight unless otherwise shown. Data on calendar year basis except for dried fruits, fresh citrus fruits, peanuts, and rice which are on a crop-year basis.
2/ Commercial production for sale as fresh produce.
3/ White, whole wheat, and semolina flour including use in bakery products.
4/ July 1 civilian population used to derive per capita figures expect for sugar, dried fruits, peanuts, and rice.
5/ Preliminary.

NOTE: Prior to the February 1976 issue of the National Food Situation, data in this table were shown on a primary distribution weight basis (e.g. carcass weight for meat). Historical data on a retail weight basis may be found in the Food Consumption, Prices and Expenditures, Supplement for 1974 to Agricultural Economic Report No. 138, ERS, USDA.

each), down sharply from 72.8 million bags a year ago. The reduced crop this year resulted from a severe frost in Brazil in July 1975. Both wholesale and retail coffee prices have been moving up sharply in recent months. The third quarter 1976 retail beverage price index averaged 27 percent above a year ago, largely reflecting a 55-percent increase in coffee prices.

Green coffee prices are now 2 to 3 times higher than in July 1975. Coffee supplies will likely continue tight for at least another 2 years as trees recover from the severe freeze and new trees reach bearing age. Recently, a major roaster announced it would increase wholesale roasted coffee prices another 15 cents per pound. The U.S. average price of a 1-pound can of roasted coffee topped $2.00 per pound in August, up from $1.28 a year ago, the last monthly price not affected by the 1975 freeze. With world coffee supplies tight, retail coffee prices are expected to continue to increase for some time.

Per capita coffee consumption is expected to decline some from last year's 9-pound retail weight level (12.3 pounds green bean equivalent); but this decline in consumption will be masked temporarily by larger imports and roastings.

Tea imports totaled 112 million pounds (dry leaf basis) for the first 8 months this year, up 8 percent from the same period last year. Per capita consumption is expected to be up slightly from 0.8 pound in 1975.

The U.S. average retail price for a package of 48 tea bags has hovered near 90 cents since August of 1975. While some of the increase in tea imports may reflect sharply higher coffee prices and a partial switch to tea, there has yet to be a noticeable impact on retail tea prices.

While wholesale cocoa prices are now beginning to rise, retail prices are not expected to rise very much until after the first of the year. Imports of cocoa beans and semiprocessed products, cocoa bean grindings, and per capita cocoa consumption are all expected to total higher than in 1975. Cocoa bean imports were up a fourth and imports of semiprocessed products were up over 40 percent from a year earlier during the first 8 months of 1976, although the volume of imports may fall off some later this year. Cocoa bean grindings have been about a tenth over last year. Thus, per capita cocoa consumption in 1976 is expected to increase some from last year's 2.6-pound retail weight level (3.3 pounds bean equivalent). However, because of anticipated high prices, per capita consumption may not match this year's level in 1977.

Vegetables—Total vegetable consumption for all of 1976 may rise about 1 percent above last year, with both fresh and processed sharing in that advance.

Fresh market vegetable supplies this fall will be slightly larger than a year earlier, if yields hold equal to the historical average. Because untimely rains in California interfered with harvest activity in late September, grower and retail prices moved up sharply early in the fall. Grower prices probably will average close to or slightly above a year earlier in the fourth quarter of this year. At retail, third quarter fresh vegetable prices (excluding potatoes) averaged only 1 percent above a year earlier, but fourth quarter prices likely will be up by a wider margin.

Raw tonnage of seven major processing vegetable crops is expected to be down about a fifth from a year ago and this would be the smallest harvest since 1972. There was reduced acreage of both canning and freezing crops, and then adverse weather caused further cuts. There was too much rain for the important tomato harvest in California, and it was too dry for maximum yields of snap beans and sweet corn in parts of the Midwest.

Although the data are far from complete at this time, the prospective supply of 10 important canned vegetables would be moderately smaller than in 1975/76, but it would be large enough to cover expected domestic disappearance during the 1976/77 marketing season. Concentrated tomato products are not included in these estimates.

Stocks of frozen vegetables on October 1 were 9 percent below the large quantity on hand the same date a year earlier. It appears that 1976 packs of frozen vegetables will also be materially smaller, and with fairly active trade movement expected, the carryover at the end of 1976/77 would probably be lower than either of the two previous marketing seasons. Nevertheless, total supplies will be generally adequate, even though one or two items may turn out on the short side.

Wholesale prices for canned vegetables had been steady at lower levels much of this year. With the prospect of less burdensome supplies, prices have bottomed out late in the summer, and some moderate upward movement is developing as the new selling season gets underway. Wholesale prices for frozen vegetables have also firmed up as the supply-demand situation moves into a tighter balance.

With a record large fall potato crop of 300 million cwt., retail prices will probably hold at low to moderate levels during the fall and winter, despite substantial exports to drought-stricken Europe. Usually only 1-2 percent of the U.S. crop is exported, and that is largely Canadian trade. This year, however, fresh, frozen and dehydrated potatoes are being shipped to France, the United Kingdom, Holland, Belgium, Italy, and West Germany. Still, supplies are adequate for normal trade needs here of about 260 million cwt. and there is room to supply the raw equivalent of up to 40 million cwt. for export before supplies become too short.

With the dry bean crop only 2 percent more than last year's small output, U.S. producers may expect

some gradual price improvement. Supplies of white beans probably are moderately larger than a year ago, but with reduced volume from Colorado and North Dakota, supplies of pinto beans, the leading colored class, are expected to be smaller this year.

Fruit—Supplies and prices of fresh and processed fruits offer the consumer a mixed bag this year. Generally, noncitrus supplies will be lower and prices higher than a year earlier. On the other hand, citrus supplies are expected to be record large this season and prices will be lower.

The first forecast of the 1976/77 citrus crop indicated a record 16.8 million tons (excluding grapefruit in California other than desert areas), almost 14 percent above last year's record crop. Larger crops are currently expected for all citrus except Florida tangelos which are forecast to be the same as a year ago. Noncitrus fruit tonnage is estimated to be moderately smaller than last year's utilized levels, due primarily to the smaller apple, tart cherry, and grape crops.

The September retail fresh fruit price index, was down moderately from August and was slightly below a year earlier. Retail fresh fruit prices are expected to decline further seasonally this fall, but strengthening demand and higher marketing costs, combined with smaller apple and grape crops, are likely to keep the retail fresh fruit price index slightly higher this fall than a year earlier.

Wholesale prices of canned fruit have strengthened in recent months, and by September, the BLS wholesale price index was 4 percent above year-earlier levels. Reflecting tight supplies of frozen strawberries and tart cherries, a substantially higher wholesale price was recorded for frozen fruits. With higher processing costs and strengthening demand, associated with moderately improving domestic and foreign economic activity, wholesale prices of processed fruit are likely to remain strong through this winter.

October 1 estimates point to a record large U.S. orange crop of 11.8 million tons (271.4 million boxes), 12 percent above the previous record set last season. In Florida, all orange prospects are placed at a record 209 million boxes, 15 percent above last season. In California, Valencia production is expected to be up 4 percent while Navel and miscellaneous production will be down 5 percent. The Arizona orange forecast is 57 percent above last season's small crop, while the Texas crop is expected to remain unchanged from last season.

Price reductions have stimulated sales of frozen concentrated orange juice (FCOJ) in recent weeks, and movement is now running moderately above last season's pace. However, current stocks of FCOJ and chilled orange juice are still moderately larger than a year ago. Thus, combined with a record orange crop, current prospects for oranges through this winter point to retail prices for oranges and FCOJ lower than a year ago.

A record grapefruit crop is being forecast, up substantially from last season. Domestic movement of grapefruit during 1976/77 is expected to expand and exports may also register a moderate gain over 1975/76. Thus, even with a record crop in prospect, retail grapefruit prices are expected to be only a little below last year's low levels.

Shipping point f.o.b. prices for apples and grapes so far this season have generally been moderately higher than last year. Supplies for fresh market are expected to be smaller this season since crops are smaller and processor demand is strong, particularly for apples and grapes. Consequently, retail prices for fresh noncitrus fruit are likely to be moderately higher through this fall and early winter.

The 1975/76 pack of canned noncitrus fruit is running smaller than last season's output. However, even with the expected reduction in total pack, supplies of canned fruit are expected to be adequate this season. Supplies of dried fruit will be seriously reduced this season as untimely, heavy rains in California caused severe damage to grapes and raisins. Total frozen fruit supplies could also be smaller than available during 1975/76.

Current prospects for the four major edible tree nuts (almonds, filberts, pecans, and walnuts) point to an estimated output of 491,550 tons (in-shell basis), slightly below 1975 but still substantially more than 1974. A record almond crop was more than offset by sharp declines for pecans and filberts and a moderately smaller walnut crop. Opening prices for almonds were moderately lower than a year earlier, but a further substantial decline is not expected in view of smaller production of other tree nuts. Prices of filberts, pecans, and walnuts are expected to average higher than last season.

FOOD SPENDING AND INCOME

Preliminary data indicate that third quarter expenditures were 7 percent above a year ago, reaching nearly $200 billion (seasonally adjusted annual rate). Expenditures on meals eaten away from home were up more than expenditures for food at home. However, as was true in the second quarter, a far larger proportion of the increase in away from home expenditures was due to price increases than for food at home. Generally plentiful food supplies have led to larger food con-

Table 5--Expenditures for food in relation to disposable income, 1960-76 1/

Year	Disposable personal income	Personal consumption expenditures for food 2/					
		For use at home 3/		Away from home 4/		Total	
		Amount	Percentage of income	Amount	Percentage of income	Amount	Percentage of income
	Bil. dol.	Bil. dol.	Pct.	Bil. dol.	Pct.	Bil. dol.	Pct.
1960	349.4	56.3	16.1	14.2	4.1	70.5	20.2
1961	362.9	57.3	15.8	15.1	4.2	72.4	20.0
1962	383.9	57.8	15.1	16.1	4.2	73.9	19.3
1963	402.8	58.8	14.6	17.0	4.2	75.8	18.8
1964	437.0	62.2	14.2	18.0	4.1	80.2	18.3
1965	472.2	66.8	14.2	19.0	4.0	85.8	18.2
1966	510.4	72.4	14.2	20.2	3.9	92.6	18.1
1967	544.5	74.0	13.6	21.0	3.9	95.0	17.5
1968	588.1	79.5	13.4	23.2	3.9	102.7	17.5
1969	630.4	84.7	13.4	24.8	3.9	109.5	17.3
1970	685.9	91.8	13.4	26.8	3.9	118.6	17.3
1971	742.8	94.2	12.7	27.8	3.7	122.0	16.4
1972	801.3	100.5	12.5	30.1	3.8	130.6	16.3
1973	901.7	112.9	12.5	33.9	3.8	146.8	16.3
1974	982.9	128.5	13.1	38.4	3.9	166.9	17.0
I	948.4	122.9	13.0	36.4	3.8	159.3	16.8
II	969.5	126.1	13.0	37.8	3.9	163.9	16.9
III	998.0	131.4	13.2	39.0	3.9	170.4	17.1
IV	1,015.8	133.8	13.2	40.4	4.0	174.2	17.2
1975	1,080.9	141.0	13.0	43.8	4.1	184.8	17.1
I	1,023.8	137.0	13.4	42.1	4.1	179.1	17.5
II	1,088.2	139.6	12.8	43.6	4.0	183.2	16.8
III	1,091.5	143.2	13.1	43.7	4.0	186.9	17.1
IV	1,119.9	144.1	12.9	46.0	4.1	190.1	17.0
1976							
I	1,147.6	147.0	12.8	47.0	4.1	194.0	16.9
II	1,172.5	149.3	12.7	48.0	4.1	197.3	16.8
III 5/	1,190.4	151.2	12.7	48.7	4.1	199.9	16.8

1/ Quarterly data are seasonally adjusted annual rates. All data reflect the January 1976 revision in the National Income and Product Accounts. 2/ Data of the Department of Commerce in the Survey of Current Business. Omits alcoholic beverages, food donated by Government agencies to schools and needy persons, and non-personal spending for food such as business purchases of meals, food furnished inmates of hospitals and institutions, and food included with transportation tickets and camp fees. 3/ Includes food consumed on farms where produced. 4/ Includes food served to the military and employees of hospitals, prisons, and food service establishments. 5/ Preliminary.

sumption. Consequently, after adjusting for price increases, expenditures for food at home in the third quarter were up over 7½ percent, while expenditures for meals eaten away from home rose nearly 5 percent above a year ago.

Compared to the second quarter, food spending rose less than 1½ percent, one of the lowest quarterly advances in years. Spending for food away from home rose slightly more rapidly than spending for food at home, again due to more rapidly rising prices. After adjusting for price increases, spending for food away from home rose less than ½ percent while food at home rose over 1 percent.

Change in food expenditures, third quarter, 1976[1] (Seasonally adjusted)

Item	From second quarter 1976	From third quarter 1975
	Percent	*Percent*
Total food		
Current dollars	1.3	7.0
1972 dollars	1.0	6.8
Food at home		
Current dollars	1.2	5.6
1972 dollars	1.2	7.6
Food away from home		
Current dollars	1.6	11.5
1972 dollars	.4	4.7

[1] Preliminary.

The share of disposable personal income allocated to food expenditures remained the same as in the second quarter at 16.8 percent. However, because the annual increase in disposable personal income was greater than the rise in food expenditures, the percentage of income allocated for food expenditures was down from 17.1 percent in the third quarter of 1975 (table 5).

Proportion of Consumer Expenditures

The 10-percent annual increase in total personal consumption expenditures outpaced the increase in disposable personal income, reducing the savings rate from a year earlier. However, much of the annual growth in consumption expenditures occured during the last quarter of 1975 and the first quarter of 1976. Since then the growth in consumer expenditures has slowed, especially for durable goods.

Despite the slower growth in durable goods, consumers allocated more of their budget to that category during the third quarter than they had during the same time period the previous 2 years, primarily due to increased spending on automobiles.

Proportion of total consumer expenditures

Item	3rd quarter		
	1974	1975	1976[1]
	Percent	*Percent*	*Percent*
Food excluding alcoholic beverages	18.8	18.9	18.4
Nondurables excluding food	23.5	23.1	22.3
Clothing and shoes	7.3	7.2	7.0
Gas and oil	4.2	4.0	3.8
Other	12.0	11.9	11.5
Durables	14.1	13.8	14.5
Automobiles and parts	5.8	5.7	6.6
Other	8.3	8.1	7.9
Services	43.6	44.2	44.8
Housing	15.2	15.4	15.4
Household operation	6.3	6.6	6.6
Transportation	3.5	3.5	3.5
Other	18.6	18.7	19.3

[1] Preliminary.

While allocations to the major categories of consumer services, housing, household operation, and transportation—have remained constant compared to a year ago, rises in other categories of services have increased the overall budget share of services. Increased allocations to services and durable goods resulted in a smaller budget share for all major categories of nondurable goods, with food showing the greatest relative decline.

Quarterly changes in personal expenditures and disposable personal income (Seasonally adjusted)

Item	1975	1976		
	IV	I	II	III[1]
	Pct.	*Pct.*	*Pct.*	*Pct.*
Personal consumption expenditures	2.5	3.1	2.0	2.3
Durable goods	4.2	6.7	2.4	2.0
Nondurable goods	1.7	1.8	1.3	1.8
Food	1.7	2.1	1.7	1.3
Other	1.7	1.5	1.0	2.2
Services	2.7	3.3	2.5	2.8
Personal disposable income	2.6	2.5	2.2	1.5

[1] Preliminary.

Food Stamps

Preliminary data indicate that 17.4 million persons participated in the Food Stamp program during the third quarter.

For the U.S. (50 States and the District of Columbia), participation averaged 15.8 million persons

Table 6--Federal cost of USDA food programs (50 States and the District of Columbia only)
Calendar years 1970-76

Year	Food stamps		Food distribution 2/			Child nutrition 5/				WIC 7/	Total 8/
	Total issued	Bonus stamps 1/	Needy families	Schools 3/	Other 4/	School lunch	School breakfast	Special food 6/	Special milk		
	Million dollars										
1970	1,925	1,104	275	234	34	337	14	15	96	---	2,109
1971	3,103	1,699	261	311	37	628	22	34	92	---	3,084
1972	3,615	1,980	225	275	39	785	28	43	91	---	3,466
1973	4,049	2,209	152	253	48	939	43	52	63	---	3,784
I	999	546	45	87	10	290	11	5	30	---	1,024
II	992	537	41	48	11	221	9	9	22	---	898
III	1,007	554	33	29	13	109	6	33	1	---	795
IV	1,052	572	33	89	14	319	17	5	10	---	1,067
1974	5,868	3,498	87	355	36	1,137	67	87	90	33	5,390
I	1,316	794	34	126	9	361	19	9	21	1	1,374
II	1,353	799	44	40	11	272	16	14	16	7	1,219
III	1,488	885	4	60	6	132	8	52	16	10	1,173
IV	1,711	1,020	5	129	10	372	24	12	37	15	1,624
1975	7,680	4,602	11	364	33	1,340	94	116	134	106	6,800
I	1,866	1,131	3	142	8	412	27	13	39	18	1,793
II	1,913	1,145	3	79	11	335	24	20	33	30	1,680
III	1,948	1,171	3	23	7	157	11	70	19	29	1,490
IV	1,953	1,155	2	120	7	436	32	13	43	29	1,837
1976											
I	2,064	1,249	3	151	8	481	36	23	47	38	2,036
II	1,984	1,187	1	109	3	358	28	35	35	44	1,811
III 9/	1,874	1,108									

1/ Includes Food Certificate Program. 2/ Cost of food delivered to State distribution centers. 3/ Includes Special Food Services. 4/ Includes supplemental food, institutions, elderly persons. 5/ Money donated for local purchase of food. Excludes nonfood assistance. 6/ Includes Child-Care and Summer Food Programs. 7/ Special Supplemental Food Program for Women, Infants, and Children begun January 1974. 8/ Excludes those food stamps paid for by the recipient. Do not add due to rounding. 9/ Preliminary.

during the quarter. This represented nearly a 5 percent drop from the previous quarter and a drop of almost 8 percent from a year ago. The number of nonpublic assistance participants has declined 14 percent from a year ago while the number of public assistance participants remains slightly above last year's levels.

The value of stamps issued to the States and the District of Columbia through the program was $1.9 billion, nearly 5 percent of the value of food purchased for home use (table 6). Nearly $800 million of the total value represented payment for the stamps on the part of the recipient with the additional $1.1 billion representing cost to the Federal Government in the form of bonus stamps. The total value of stamps and the value of bonus stamps are down from both the second quarter of this year and the third quarter of 1975 due to lower participation rates and steady food prices. The value of the food stamp allotment for the 48 states and the District of Columbia increased in January due to stability in the cost of the "Thrifty Food Plan" which is designed to allow for a nutritionally adequate diet.

SUPPLY AND UTILIZATION

Current estimates indicate that net utilization of farm food commodities (utilization exclusive of domestic feed and seed use for all farm food commodities) in 1976 may increase about 4 percent from 1975 (table 7). This increase resulted from a 3½-percent rise in domestic use and a 5-percent rise in exports. On the supply side, although net production is expected to be down about 1½ percent in 1976, beginning stocks were up about 17 percent and imports will likely be up about 1 percent. Consequently, yearend stocks will probably increase slightly from 1975.

Virtually all of the decline in net production is associated with crop food commodities, which were especially hampered by dry weather this summer. However, the opposite is true for livestock production which increased as a result of growing demand and conditions favorable to the increased feeding of livestock.

Most of the decline in production was in soybeans, peanuts, sugar, and the minor feed grains other than corn. Corn production, while not as large as expected earlier in the season, is still estimated to be about 2 percent above last year.

The abundance and availability of corn, as a result of last year's record crop and increased feeding of livestock and poultry has resulted in much larger domestic feed use in 1976. Consequently, gross production of livestock products is expected to be up nearly 6 percent with increases occurring in all major categories. Poultry and eggs are expected to be up about 7½ percent, red meats about 6 percent, and milk about 3½ percent.

Farm food commodity imports, which traditionally supply about a tenth of total use, are expected to increase about 1 percent from last year, reversing the trend of the last 3 years. The estimated increase is a combination of larger imports of livestock which partially offset a slight decline

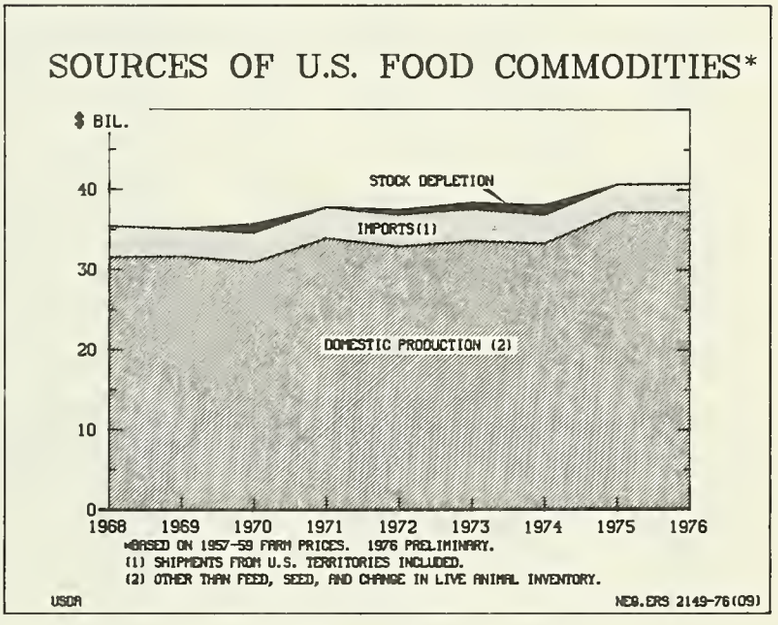

Figure 11

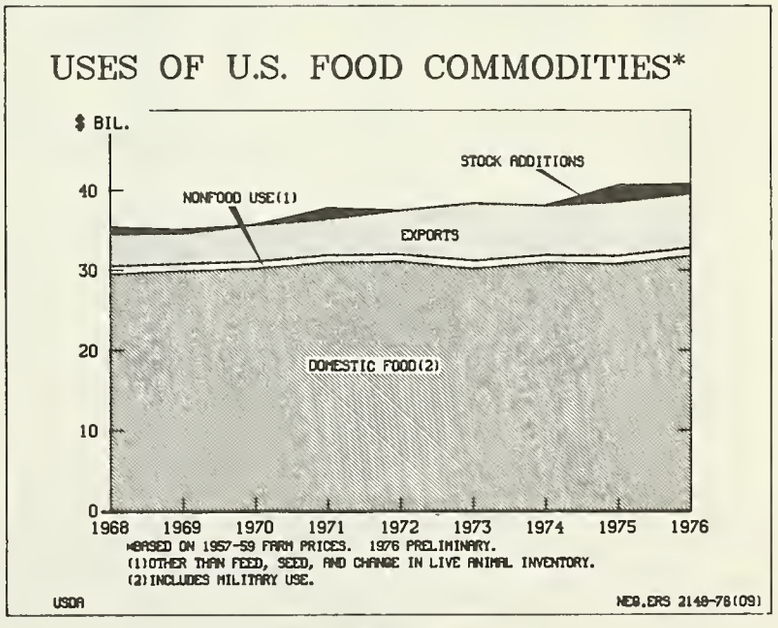

Figure 12

Table 7--Livestock, crop and total farm food commodities: Supply-utilization indexes by component and relationship of components to annual utilization, 1970-76 1/

Year	Supply			Total annual utilization	Utilization					
					Domestic use					Exports and shipments 4/
					Food		Non-food		Total	
	Production	Imports 2/	Stocks 3/		Civilian	Military	Seed and feed	Other		
	A--All food commodities indexes: (1967=100) 5/									
1970	98.4	105.4	120.7	105.7	105.8	70.2	---	90.6	104.5	114.0
1971	108.0	110.8	111.8	107.6	108.3	62.6	---	98.7	107.1	111.9
1972	104.7	115.2	123.4	111.2	109.8	49.8	---	92.5	107.9	135.0
1973	107.0	115.5	118.3	113.8	106.5	39.2	---	103.2	105.0	178.3
1974	106.1	104.0	112.2	113.1	109.2	34.1	---	103.0	107.4	154.7
1975	118.2	101.5	102.3	114.1	108.5	40.1	---	104.2	106.9	167.5
1976 6/	116.5	102.5	119.5	118.6	112.9	35.8	---	99.4	110.8	176.3
	Livestock food commodities: (1967=100)									
1970	103.5	124.6	97.5	104.8	105.8	71.6	102.0	95.8	104.7	108.7
1971	106.1	116.8	106.9	107.4	108.5	61.4	99.1	89.9	106.9	127.8
1972	105.6	134.1	102.4	107.7	109.2	49.3	99.5	92.2	107.4	121.5
1973	100.6	145.0	93.1	102.6	104.6	37.0	97.5	81.8	102.4	109.9
1974	105.5	119.2	103.2	106.5	109.1	32.0	87.3	89.9	106.6	106.0
1975	103.9	116.2	111.6	105.8	107.7	38.2	84.3	97.4	105.4	119.7
1976 6/	109.7	125.2	90.7	110.7	112.9	32.8	85.9	77.6	109.9	144.1
	Crop food commodities: (1967=100)									
1970	98.1	100.6	121.9	109.3	105.8	64.9	114.2	88.2	108.1	114.7
1971	113.5	109.3	112.1	111.0	108.0	67.2	117.5	103.0	111.3	109.7
1972	111.6	110.5	124.4	119.9	111.0	51.9	126.8	92.7	122.2	136.9
1973	119.5	108.2	119.6	128.1	111.0	47.3	121.1	113.4	114.7	187.9
1974	108.6	100.3	112.6	119.4	109.4	42.0	112.1	109.3	109.9	161.5
1975	125.9	97.9	101.9	116.3	110.2	47.3	94.7	107.5	103.3	174.2
1976 6/	122.6	96.9	120.9	124.8	112.8	47.3	113.1	109.8	112.2	180.8
	B--All food commodities: Percentage of annual utilization 5/									
1970	86.6	10.3	3.1	100.0	83.5	1.2	---	2.4	87.1	12.9
1971	93.3	10.6	-3.9	100.0	83.9	1.1	---	2.6	87.6	12.4
1972	87.6	10.7	1.7	100.0	82.4	.8	---	2.3	85.5	14.5
1973	87.5	10.5	2.0	100.0	78.1	.6	---	2.6	81.3	18.7
1974	87.3	9.5	3.2	100.0	80.5	.6	---	2.6	83.7	16.3
1975	96.3	9.2	-5.5	100.0	79.2	.7	---	2.6	82.5	17.5
1976 6/	91.6	8.9	- .5	100.0	79.3	.6	---	2.4	82.3	17.7
	Livestock food commodities: Percentage of annual utilization									
1970	96.4	3.9	-.3	100.0	92.7	1.6	2.0	1.3	97.6	2.4
1971	96.3	3.6	.1	100.0	92.8	1.3	1.9	1.2	97.2	2.8
1972	95.7	4.1	.2	100.0	93.2	1.1	1.9	1.2	97.4	2.6
1973	95.7	4.6	-.3	100.0	93.6	.8	2.0	1.2	97.5	2.5
1974	96.5	3.7	-.2	100.0	94.0	.7	1.7	1.2	97.7	2.3
1975	95.9	3.6	.5	100.0	93.6	.8	1.7	1.3	97.4	2.6
1976 6/	96.6	3.7	-.3	100.0	93.7	.7	1.6	1.0	97.0	3.0
	Crop food commodities: Percentage of annual utilization									
1970	81.1	13.4	5.5	100.0	43.2	.4	34.5	2.7	80.8	19.2
1971	92.5	14.3	-6.8	100.0	43.4	.4	35.0	3.1	81.9	18.1
1972	84.1	13.4	2.5	100.0	41.2	.3	35.0	2.6	79.1	20.9
1973	84.4	12.3	3.3	100.0	38.6	.3	31.3	2.9	73.1	26.9
1974	82.3	12.2	5.5	100.0	40.8	.2	31.1	3.1	75.2	24.8
1975	97.8	12.3	-10.1	100.0	42.1	.3	27.0	3.1	72.5	27.5
1976 6/	89.1	11.3	- .4	100.0	40.2	.3	30.0	2.9	73.4	26.6

1/ Quantities weighted by constant farm prices. Domestic use allocated on basis of value of processed products. Includes essentially all commodities having any U.S. food use; for item list, see NFS-124; for 1950-67 data see NFS-136. 2/ Includes shipments from U.S. Territories. 3/ Farm (other than live animals), commercial, and Government program holdings. Section A: January 1; derived by applying annual changes to January 1961 level. Section B: Represents stock changes. Negatives indicate stock increases; positives signify withdrawals. 4/ Includes shipments to U.S. Territories. 5/ Feed and seed omitted from total commodities to avoid double counting of use through livestock. 6/ Preliminary.

Table 8--Livestock, crop, and total farm food commodities: Supply-utilization farm equivalent aggregates 1/
(million dollars)

Year	Supply				Utilization					
					Domestic Use					
					Food		Non-feed			
	Production	Imports	Stock changes 2/	Total annual utilization	Civilian	Military	Seed and feed	Other	Total	Exports and shipments
	A-- All food Commodities									
1967	31,439	3,486	-1,133	33,792	28,177	628	---	951	29,756	4,036
1968	31,515	3,886	-918	34,483	28,863	615	---	954	30,432	4,051
1969	31,637	3,532	-520	34,649	29,395	524	---	958	30,877	3,772
1970	30,927	3,675	1,100	35,702	29,799	441	---	862	31,102	4,600
1971	33,946	3,862	-1,432	36,376	30,528	393	---	939	31,860	4,516
1972	32,924	4,017	628	37,569	30,926	313	---	880	32,119	5,450
1973	33,652	4,028	763	38,443	30,020	246	---	981	31,247	7,196
1974	33,356	3,627	1,224	38,207	30,770	214	---	980	31,964	6,243
1975	37,162	3,539	-2,133	38,568	30,566	252	---	991	31,809	6,759
1976 3/	36,703	3,572	-183	40,092	31,808	225	---	945	32,978	7,114
	B -- Livestock food commodities									
1967	20,792	698	-171	21,319	19,577	497	440	308	20,822	497
1968	20,906	761	97	21,764	20,000	496	425	314	21,235	529
1969	20,991	794	89	21,874	20,175	424	440	314	21,353	521
1970	21,529	870	-56	22,343	20,703	356	449	295	21,803	540
1971	22,054	815	27	22,896	21,243	305	436	277	22,261	635
1972	21,964	936	55	22,955	21,384	245	438	284	22,351	604
1973	20,920	1,012	-60	21,872	20,473	184	417	252	21,326	546
1974	21,932	832	-50	22,714	21,365	159	386	277	22,187	527
1975	21,613	811	124	22,548	21,092	190	371	300	21,953	595
1976 3/	22,809	874	-76	23,607	22,111	163	378	239	22,891	716
	C -- Crop food commodities									
1967	17,445	2,810	-962	19,293	8,600	131	6,380	643	15,754	3,539
1968	17,718	3,148	-1,015	19,851	8,863	119	6,707	640	16,239	3,522
1969	18,100	2,761	-609	20,252	9,220	100	7,037	644	17,001	3,251
1970	17,108	2,828	1,156	21,092	9,096	85	7,284	567	17,032	4,060
1971	19,798	3,071	-1,459	21,410	9,285	88	7,494	662	17,529	3,881
1972	19,461	3,105	573	23,139	9,542	68	8,087	596	18,293	4,846
1973	20,853	3,040	823	24,716	9,547	62	7,728	729	18,066	6,650
1974	18,939	2,819	1,274	23,032	9,405	55	7,153	703	17,317	5,716
1975	21,939	2,751	-2,257	22,433	9,474	62	6,042	691	16,269	6,164
1976 3/	21,462	2,723	-107	24,078	9,697	62	7,215	706	17,680	6,398

1/ Quantities weighted by 1957-59 farm prices
2/ Negatives indicate stock increases, positives signify withdrawals.
3/ Preliminary

in imports of crops. Noticeable increases are expected in imports of beef and dairy products, while a significant decrease is expected for barley.

Stocks of farm food commodities at the beginning of 1976 were up nearly 17 percent, reversing the downward trend of the last 4 years. However, this year's reduction in crop food production will not allow inventories to be rebuilt nearly as much as last year, and yearend inventories of farm food commodities may be only slightly more than 1 percent higher than in 1975. It should be noted, however, that these are working inventories, most of which will be needed to service the anticipated larger demand for domestic use and exports until new supplies become available in 1977.

On the demand side, record highs are seen for both domestic use and exports. Total domestic food use in 1976 is estimated to be up more than 3½ percent. Consumption of livestock products will be about 5 percent larger with increases in the use of red meats, poultry, and milk. Domestic food use of crops will likely rise about 2 percent with oils, fruits, and grains showing the greatest increases. Exports of farm food products in calendar year 1976 are estimated to be up about 5 percent from last year. Crop food exports, which account for more than 90 percent of total farm food exports, are expected to increase about 4 percent from 1975, with most of the increase coming in corn and soybeans. Exports of livestock food commodities are also expected to increase with gains for red meats, poultry, and nonfat dry milk.

Nonfood use (excluding feed and seed) of farm food commodities, which accounts for 2 to 3 percent of net utilization, is expected to decline about 4½ percent. On the other hand, nonfood use (including feed and seed) especially of crop food commodities is expected to increase.

NUTRITIONAL REVIEW

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ABSTRACT: Larger food supplies in 1976, about 2 percent higher than in 1975, combined with new enrichment standards for white flour enacted July 1, 1975, account for the 1 to 5 percent higher levels for 1976 for food energy (calories) and all nutrients for which estimates are presented. Three nutrients—iron, niacin, and vitamin B_6—are at their highest levels since 1909-13 and four—protein, riboflavin, thiamin, and ascorbic acid—are at highest levels since mid-1940's.

Dairy products, provided three-fourths of the calcium in U.S. diets in 1976. Three food groups—dairy products; meat, poultry, fish; and grain products—together provided three-fourth of the phosphorus.

Changes in food consumption for over 65 years have not significantly affected the calcium-to-phosphorus ratio in 1976.

KEY WORDS: Food supply, diet, food consumption, human nutrition, food economics, calcium, phosphorus.

Situation in 1976

The larger food supplies forecast for 1976, possibly a little more than 2 percent higher, and the new standard of enrichment of white flour[1] raised the levels for food energy (calories) and all nutrients above those of last year by 1 to 5 percent (table 9). The higher enrichment standards account for a large part of the 5-percent increase indicated for thiamin and niacin. Use of more meat also contributed to the thiamin and larger supplies of meat and poultry to the niacin. In addition to enrichment, increased consumption of meat, poultry, and dairy products also contributed to the 4-percent higher level for riboflavin. The increase in meat supplies accounts for the 3-percent increase in protein and, together with the greater use of fats and oils (salad and cooking oils and shortening), to the same percent increase in nutrient fat. The carbohydrate level increased 2 percent from use of more refined sugar. As a result of the increases in protein, fat, and carbohydrate, food energy rose 2 percent.

Other small increases of 2 percent or less are distributed among the minerals and other vitamins. The increase in use of dairy products accounts for more calcium and, with larger supplies of meat, for more phosphorus. Larger meat supplies also account for more iron, magnesium, and vitamins B_6 and B_{12}. The increase in ascorbic acid is attributed to more fruits, and the higher level for vitamin A value, to more poultry and edible offal.

The current across-the-board increase in nutrients reflects recovery from the lower levels of 1975. Present levels are equal to or surpass those for 1974 except for declines of 1 percent in vitamin A value and in vitamin B_{12}. A comparison of data for 1976 with those for 1967 shows that, except for calcium, all nutrients meet or exceed 1967 levels.

Three nutrients—iron, niacin, and vitamin B_6—are at their highest levels in about 65 years and four—protein, riboflavin, thiamin, and ascorbic acid—are at their highest since the mid-1940's.

Trends in Calcium and Phosphorus

In recent years there has been some concern that the balance between calcium and phosphorus in diets is shifting to disproportionately high levels

[1]Federal standards for enrichment of white flour with thiamin, riboflavin, and niacin became effective July 1, 1975. Standards for iron were stayed pending further hearings.

Table 9--Nutrients available for civilian consumption, per capita per day, selected periods 1/

Nutrient	Unit	Average 1957-59	1967	1974	1975	1976 2/	1976 as a percentage of: 1957-59	1967	1975
Food energy	Cal.	3,130	3,210	3,280	3,210	3,290	105	102	102
Protein	Gm.	95	99	100	99	102	107	103	103
Fat	Gm.	143	150	156	152	157	110	105	103
Carbohydrate	Gm.	374	373	376	370	376	101	101	102
Calcium	Gm.	.98	.95	.92	.91	.93	95	98	102
Phosphorus	Gm.	1.53	1.54	1.54	1.52	1.55	101	101	102
Iron	Mg.	16.3	17.4	18.3	18.3	18.6	114	107	102
Magnesium	Mg.	346	343	341	340	344	99	100	101
Vitamin A value	I.U.	8,100	7,900	8,200	8,000	8,100	100	103	101
Thiamin	Mg.	1.85	1.92	1.99	1.96	2.06	111	107	105
Riboflavin	Mg.	2.31	2.36	2.37	2.37	2.47	107	105	104
Niacin	Mg.	21.1	23.0	23.9	24.1	25.3	120	110	105
Vitamin B_6	Mg.	2.01	2.18	2.27	2.26	2.31	115	106	102
Vitamin B_{12}	Mcg.	8.9	9.6	9.7	9.5	9.6	108	100	101
Ascorbic acid	Mg.	105	108	117	122	123	117	114	101

1/ Quantities of nutrients computed by Agricultural Research Service, Consumer and Food Economics Institute, on the basis of estimates of per capita food consumption (retail weight), including estimates of produce of home gardens, prepared by the Economic Research Service. No deduction made in nutrient estimates for loss or waste of food in the home, use for pet food, or for destruction or loss of nutrients during the preparation of food. Civilian consumption. Date include iron, thiamin, riboflavin, and niacin added to flour and cereal products; other nutrients added primarily as follows: Vitamin A value to margarine, milk of all types, milk extenders; vitamin B_6 to cereals, meal replacements, infant formulas; vitamin B_{12} to cereals; ascorbic acid to fruit juices and drinks, flavored beverages and dessert powders, milk extenders, and cereals. Quantities of added nutrients for 1960-66 were estimated in part by Consumer and Food Economics Institute.

2/ Preliminary.

of phosphorus in relation to calcium. Trends in levels and sources of these minerals in the national food supply since the turn of the century, and their relationship to each other, are discussed here.

Calcium

The current calcium level is 0.93 gram per capita per day, 13 percent higher than 65 years ago, but 7 percent lower than in the late 1940's, when consumption of milk, a major source of this nutrient, was high. In fact, the dairy products group alone provides three-fourths of the calcium in today's food supply, up from over two-thirds at the beginning of the century (fig. 13).

Among the dairy foods, fluid whole milk now contributes almost one-third of the total calcium supply in contrast to two-fifths in 1967 and nearly one-half in 1909-13. Despite a steady decline in use of whole milk since the mid-1950's, it continues to be the leading source of calcium. Fluid low-fat milks, on the other hand, have increased substantially in the past two decades, resulting in a record high share of the total calcium coming from these milks—a share almost equal to one-half that from whole milk. A contributing factor to larger supplies of fluid low-fat milks is the phenomenal growth in use of yogurt, which has more than quadrupled since 1967 to a little more than 2 pounds per capita per year. The recent introduction of frozen yogurt, now on many markets, promises an even greater increase.

Total use of processed dairy products, also dependable sources of calcium, has increased over the years. Among the processed foods, cheese currently makes the largest contribution to total calcium supplies providing a share now more than double that supplied in the late 1940's. Calcium provided by cheese is now about one-seventh of the total supply and nearly one-fifth that from dairy products. Increased use of cheese has been so great that it now provides a share of the total calcium almost equal to that from low-fat milks. Per capita use of American-type cheese and the use of other varieties, excluding cottage cheese, have followed an almost parallel steady upward trend since the late 1950's (fig. 14). American cheese leads in use and currently accounts for almost two-thirds of the calcium provided by all cheese. Cottage cheese, although widely used, currently furnishes only 4 percent of the calcium from all cheese because it is not as good a source of calcium as most other kinds of cheese.

The other processed dairy foods—dry milks, frozen desserts, evaporated and condensed milks—together provide about the same proportion of calcium today as cheese—one-seventh of the total calcium in the food supply and one-fifth of that from dairy products. Nonfat dry milk, because of a decrease in use since the early 1960's, now provides only about one-half as much calcium as it did at that time. Factors in the decline in use of this product are lower Government donations and greater use of more favorably priced substitutes in nondairy processed foods. Use of dry whey, a product of cheese manufacture and an economical substitute for nonfat dry milk, has greatly increased since 1967. Even though calcium supplied by this product has almost tripled in the last 10 years, whey products still account for only 2 percent of calcium from all dairy products. However, this is no small contribution for a byproduct. Ice cream and other frozen desserts now provide about 5 percent of the total calcium. Most of the increase in use of these products had occurred by the late 1950's.

Although the dairy products group is the primary source of calcium in the national food supply,

Sources of calcium and phosphorus by food groups, selected periods

Food group	Calcium					Phosphorus				
	1909-13	1947-49	1957-59	1967	1976[1]	1909-13	1947-49	1957-59	1967	1976[1]
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Dairy products, excluding butter	67.7	74.2	76.5	76.1	75.0	27.5	37.1	38.3	36.3	34.8
Meat, poultry, fish, including fat pork cuts	4.2	3.5	3.3	3.7	3.8	20.0	21.0	23.0	26.5	28.3
Dry beans, peas, nuts, and soya products	3.2	2.5	2.6	2.6	3.0	5.4	5.6	5.7	5.7	6.3
Potatoes, sweetpotatoes	2.5	1.2	1.0	.9	.9	6.9	4.2	3.8	3.7	3.8
Vegetables (excluding potatoes, sweetpotatoes)	7.1	7.0	6.2	6.1	6.5	4.5	5.7	5.3	5.4	5.4
Fruit	2.1	2.4	2.1	2.1	2.3	1.7	2.0	1.9	1.8	2.0
Flour and cereal products	7.4	3.3	3.3	3.4	3.4	26.6	15.1	12.9	12.4	12.1
Other foods[2]	5.7	5.5	5.0	5.0	5.1	6.8	9.2	9.0	8.3	7.2
Total[3]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Quantity per capita per day (mg.)	817	996	979	946	925	1,561	1,554	1,530	1,544	1,554

[1] Preliminary. [2] Includes eggs. [3] Components may not add to total due to rounding.

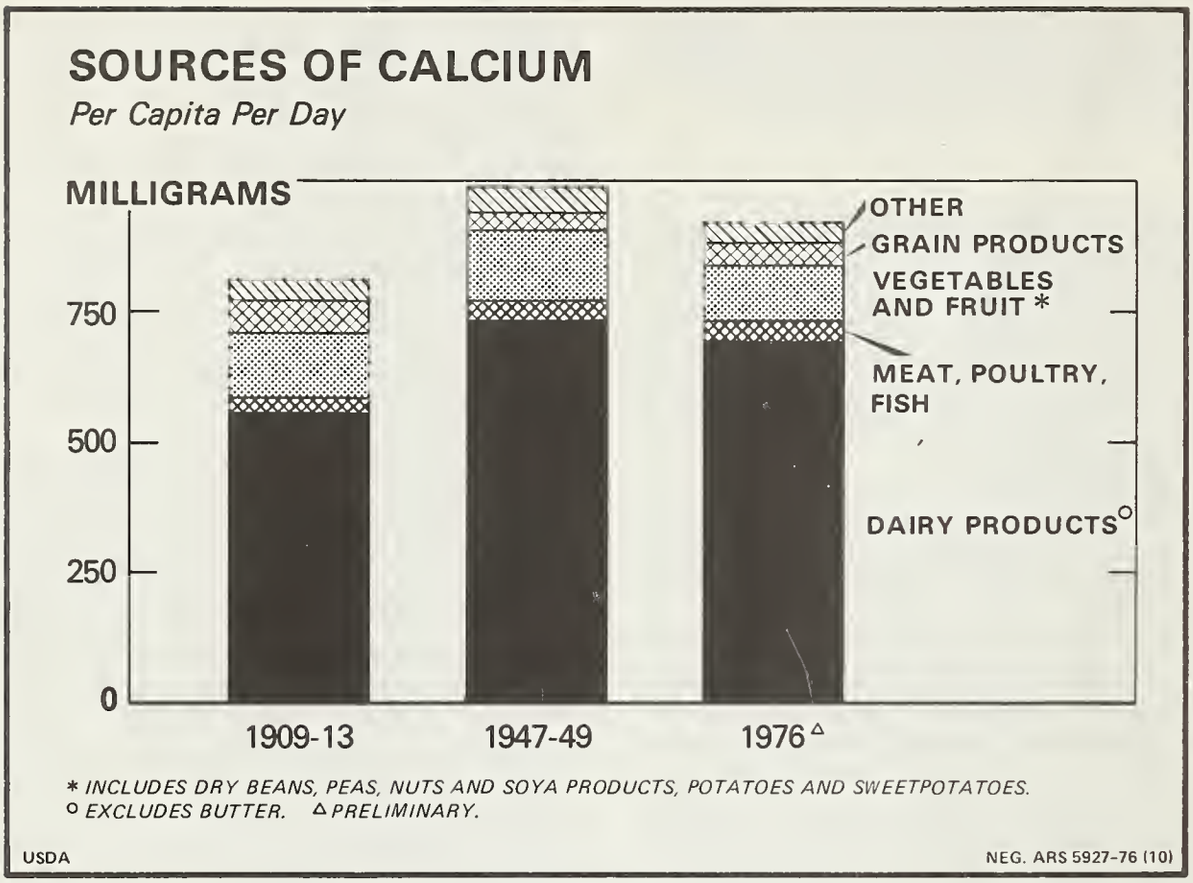

Figure 13

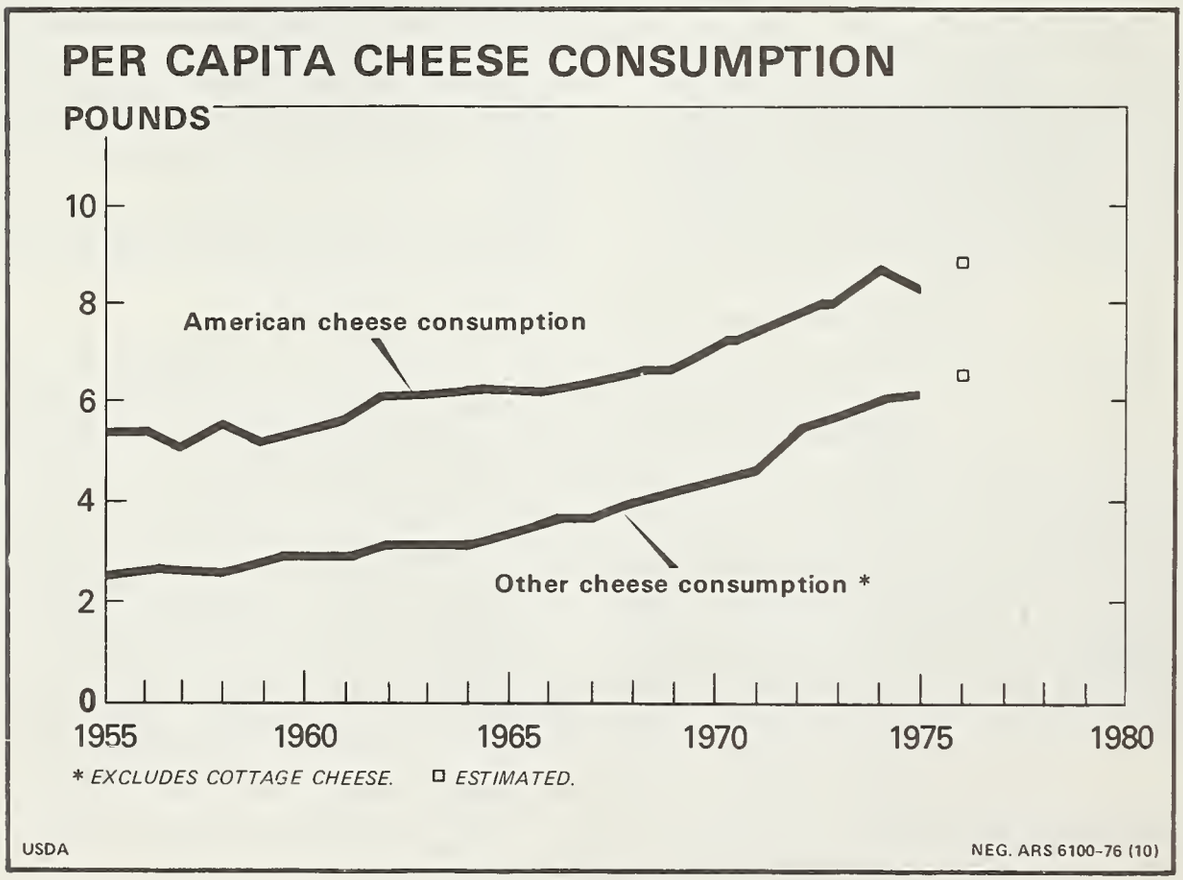

Figure 14

other foods make a sizable contribution to the calcium level. Together, fruits and vegetables, including potatoes, sweetpotatoes, dry beans, peas, nuts, and soya products, have consistently provided from 12 to 15 percent of the total calcium, a contribution second to that of dairy products. Grain products provided about 7 percent of the calcium at the beginning of the century. However, by 1947-49 the percentage supplied had been halved due to the fall in use of flour and cereal products and has remained at about the same level since then. Despite increased consumption, the meat, poultry, and fish group continues to provide only 3 to 4 percent of the total, as these foods in general are not good sources of calcium.

Contribution of dairy products to total calcium, selected periods

Food	1909-13	1947-49	1957-59	1967	1976[1]
	Pct.	*Pct.*	*Pct.*	*Pct.*	*Pct.*
Fluid whole milk	46.9	43.5	43.9	39.0	30.8
Fluid low-fat milks	11.2	5.3	4.1	6.7	14.8
Evaporated and condensed milks	3.1	9.1	7.0	5.5	3.8
Dry milks	0	5.3	9.3	9.7	6.0
Cheese	4.6	6.5	7.6	9.8	13.9
Ice cream and frozen desserts	.4	2.8	3.4	4.5	4.8
Other (cream)	1.5	1.6	1.2	.9	.8
Total[2]	67.7	74.2	76.5	76.1	75.0

[1] Preliminary. [2] Components may not add to total due to rounding.

Phosphorus

The phosphorus level in the 1976 food supply is 1.55 grams per capita per day, about the same as that in 1909-13 (fig. 15). In fact, over the years the phosphorus level has fluctuated only within a narrow range with the lowest level, 1.43 grams per capita per day, occurring in 1935, a year of comparatively low food consumption. The high level, 1.71 grams per capita per day, was reached in 1946, when use of dairy products was high and use of meat and poultry had increased, although consumption had not reached today's level.

Major shifts in sources of phosphorus have occurred over the years. At the beginning of the century, phosphorus was supplied almost equally by animal and vegetable sources; today, about two-

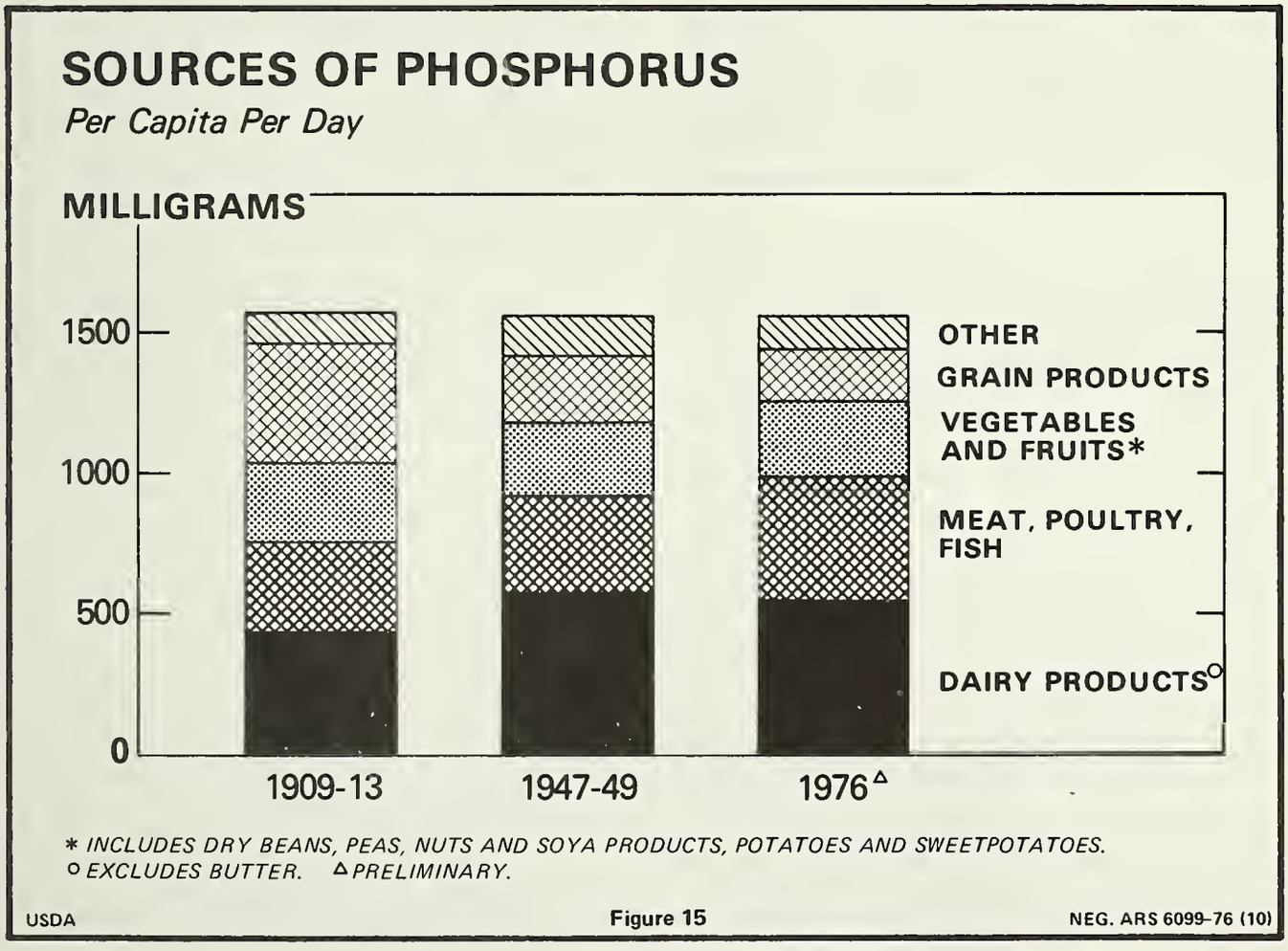

Figure 15

Table 10--Contribution of major food groups to nutrient supplies available for civilian consumption, 1957-59 average and 1976 1/

Food groups	Food energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Magnesium	Vitamin A value	Thiamin	Ribo-flavin	Niacin	Vitamin B_6	Vitamin B_{12}	Ascorbic acid
1957-59 Average								Percent							
Meat (including pork fat cuts), poultry & fish	18.2	35.8	32.9	0.1	3.3	23.0	27.7	10.9	20.2	27.9	21.4	43.0	39.9	65.2	1.2
Eggs	2.6	6.8	4.0	.1	2.8	6.7	7.1	1.6	7.3	2.9	6.5	.2	2.7	11.3	0
Dairy products, excluding butter	13.5	24.4	16.6	7.7	76.5	38.3	2.3	23.3	12.7	10.5	44.8	2.0	11.4	23.5	5.1
Fats and oils, including butter	16.0	.2	39.5	2/	.4	.2	0	.3	8.7	0	0	0	.2	0	0
Citrus fruits	.7	.4	.1	1.5	.8	.6	.8	1.7	1.1	2.1	.4	.7	1.2	0	22.1
Other fruits	2.6	.8	.3	5.6	1.3	1.3	4.4	4.4	7.0	2.2	1.8	2.3	6.8	0	10.8
Potatoes & sweetpotatoes	2.8	2.4	.1	5.3	1.0	3.8	4.3	7.3	8.3	6.1	2.0	7.6	13.6	0	20.6
Dark green & deep yellow vegetables	.3	.5	2/	.5	1.6	.7	1.9	2.2	20.6	1.0	1.2	.7	2.0	0	9.2
Other vegetables, including tomatoes	2.3	3.3	.4	4.2	4.6	4.7	9.0	10.2	13.8	6.7	4.4	6.2	9.9	0	30.9
Dry beans & peas, nuts, soy flour & grits	2.9	5.2	3.3	2.3	2.6	5.7	7.3	10.7	2/	5.9	1.8	6.2	4.7	0	2/
Flour & cereal products	21.4	19.9	1.6	37.6	3.3	12.9	28.0	18.4	.4	34.5	14.8	24.7	7.6	0	0
Sugar & other sweeteners	15.8	2/	0	34.2	.8	.2	4.3	.2	0	.1	.1	2/	2/	0	2/
Miscellaneous 3/	.8	.4	1.4	.7	1.1	2.0	3.0	8.6	2/	.1	.8	6.3	.1	0	0
1976 Preliminary															
Meat (including pork fat cuts), poultry & fish	20.0	42.6	33.4	0.1	3.9	28.3	30.6	14.1	22.6	25.0	24.4	45.2	46.2	70.2	1.0
Eggs	1.9	5.0	2.9	.1	2.3	5.2	4.8	1.2	5.7	2.1	4.7	.2	1.8	8.1	0
Dairy products, excluding butter	11.2	21.9	12.5	6.8	75.0	34.8	2.3	21.6	13.0	8.6	38.6	1.4	10.3	20.1	3.7
Fats and oils, including butter	18.6	.2	43.9	2/	.4	.2	0	.4	8.0	0	0	0	2/	0	0
Citrus fruits	1.1	.5	.1	2.2	1.1	.8	.8	2.5	1.7	3.0	.5	.9	1.3	0	28.2
Other fruits	2.3	.6	.3	5.0	1.2	1.1	3.4	4.0	5.5	1.8	1.6	1.7	5.6	0	11.8
Potatoes & sweetpotatoes	2.8	2.3	.1	5.5	.9	3.8	4.3	7.1	5.2	5.5	1.6	6.6	10.8	0	17.2
Dark green & deep yellow vegetables	.3	.4	2/	.5	1.6	.6	1.6	2.0	20.4	.8	1.0	.6	1.7	0	8.3
Other vegetables, including tomatoes	2.4	3.1	.4	4.7	4.9	4.8	8.6	10.2	15.2	6.2	4.2	5.4	8.8	0	26.4
Dry beans & peas, nuts, soy flour & grits	3.2	5.7	3.9	2.3	3.0	6.3	6.6	12.4	2/	5.6	1.9	7.1	4.4	0	2/
Flour & cereal products	19.2	17.3	1.3	35.3	3.4	12.1	27.4	17.8	.4	41.3	20.8	27.4	8.7	1.5	0
Sugar & other sweeteners	16.4	2/	0	37.1	1.6	.3	7.5	.2	0	2/	2/	2/	2/	0	2/
Miscellaneous 3/	.6	.4	1.2	.5	.8	1.5	2.1	6.5	2.3	.1	.6	3.5	.1	0	3.4

1/ Percentages for food groups are based on nutrient data included in totals in table 9. 2/ Less than 0.05 percent. 3/ Coffee and chocolate liquor equivalent of cocoa beans and fortification of products not assigned to a specific food group.

thirds of the phosphorus comes from animal and about one-third from vegetable sources.

Three food groups—dairy products; meat, poultry, and fish; and grain products—provide three-fourths of the phosphorus in the food supply; whereas, dairy products alone provide that proportion of the calcium. The dairy products group, always the leading source of phosphorus, was closely followed by grain products at the beginning of the century. However, by 1957-59 the share of phosphorus from grain products had dropped one-half and the contribution from meat, poultry, and fish showed an increase of 3 percentage points. Thereafter, the contribution to phosphorus from this group continued to rise while the decline in the share from grain products leveled off. Thus, the meat, poultry, and fish group is now second to dairy products as a source of phosphorus.

As a group, dairy products now account for over one-third of the total phosphorus in the food supply, compared with almost two-fifths in 1957-59 and over one-fourth in 1909-13. Since 1957-59, however, the share provided has declined, with only fluid low-fat milks, cheese, and ice cream and frozen desserts increasing their contributions.

Fluid milks today contribute less of the total phosphorus than in 1947-49, when milk consumption was high, one-fifth and one-fourth, respectively. Whole milk accounts for the largest share of phosphorus among the dairy products, despite the decline in its use over this time period. The share provided by low-fat milks shows an upward trend for the past 20 years and is now one-half that from whole milk. The decline in phosphorus from fluid milks would have been greater had there not been an increase from rising use of low-fat milks.

With cheese consumption now at a record high, this food provides 6 percent of the total phosphorus in the food supply. The share of phosphorus supplied by cheese more than doubled between 1909-13 and the late 1950's and increased more than one-half again by 1976.

American type cheese has accounted for about one-half of the phosphorus from all cheese since 1957-59. At that time cottage cheese provided one-sixth of this nutrient, but its share has declined to one-tenth today. The remaining varieties of cheese increased their share from one-fourth to one-third spurred in part by the rapid growth in use of mozzarella cheese, the predominant pizza cheese.

The share of total phosphorus coming from dry milks increased prior to 1967 with generally increasing use of these milks, but in the past decade the share has dropped from about 5 to 3 percent of the total as use has declined. A major factor contributing to this decline is the use of dry whey as a replacement for nonfat dry milk in non-dairy processed foods. Consequently, phosphorus provided by whey is now 2½ times that of 1967.

Ice cream and other frozen desserts have contributed a fairly stable 2 percent of the total phosphorus since 1957-59. Evaporated and condensed milks, which have been decreasing in use, provided 5 percent of the total phosphorus in 1947-49 but under 2 percent today.

The meat, poultry, and fish group now provides a record 28 percent of the total phosphorus, reflecting increased supplies from beef and poultry. Since 1947-49, use of beef has almost doubled and use of poultry has more than doubled.

Grain products now contribute only one-eighth of the total phosphorus in the food supply, in contrast to the more than one-fourth provided in 1909-13, as their consumption has been more than halved. The decline in phosphorus coming from grain products alone offset the combined increases from dairy products and meat, poultry, and fish groups. Today, the share of total phosphorus from grain products is about the same as that from fruits and vegetables, including potatoes and sweetpotatoes.

Smaller contributions to total phosphorus come from other food groups (table 10). The share from dry beans, peas, nuts, and soya products has remained relatively stable at 5-6 percent. Since 1947-49, phosphorus provided by peanuts and soya products increased to more than offset the decline from dry beans and dry peas. The almost 4-percent share of phosphorus provided by potatoes and sweetpotatoes in today's food supply is about one-half as much as was provided in 1909-13.

Calcium-to-phosphorus ratio

The proportion of calcium to phosphorus in the national diet has not changed greatly over the years. From 1909-13 to 1935-39 the calcium-to-phosphorus ratio shifted from 1:1.9 to 1:1.6, mainly because of a one-third decline in use of grain products, a good source of phosphorus. Since 1970, the ratio has remained at 1:1.7 as a result of increased use of meat coupled with a leveling-off in use of grain products. Although food supply estimates do not include phosphorus added to certain soft drinks nor quantities of calcium or other minerals added to some flours to make them self-rising or phosphated, nor the nutritive content of baking powder, yeast, or dough conditioners, the total amounts used would have to be extremely large to materially affect the per capita levels of calcium and phosphorus.

The amount of phosphorus in diets is almost always higher than that of calcium. It has usually been recommended that the ratios "... should lie between 2:1 and 1:2. However, it has been found

that ratios outside these limits are satisfactory if intake of vitamin D is adequate..."[2] But the limits outside these ratios have not been specified. Based on U.S. food supply statistics, it appears that the proportion of calcium to phosphorus in the national diet is not a problem. Individuals, though, may select diets that provide undesirable calcium-to-phosphorus ratios, particularly if the better sources of calcium are omitted from diets or are used in insignificant amounts.

[2]Food and Nutrition Board. Recommended Dietary Allowances, Eighth Revised Edition, 1974. Washington, D.C., National Academy of Sciences, 1974, p. 83.

CONSUMER NEWS NOTES

USDA Consumer Representation Plan Announced

—Below are the highlights of the U.S. Department of Agriculture's (USDA) Consumer Representation Plan which was published recently along with plans for other federal departments and agencies in the Federal Register.

Background

The Consumer Representation Plan is in response to President Ford's initiative of April 1975 for executive branch departments and agencies to improve their procedures for considering consumer viewpoints in major departmental decision-making processes. Proposed consumer representation plans were published in the Federal Register on November 26, 1975, for public review. Additionally, a series of public meetings was held throughout the country early in 1976 to meet with the public and answer questions about the proposed plans. Public comments on the proposed plans were analyzed by USDA in preparing the final Consumer Representation Plan.

Highlights

The USDA plan establishes two committees for consideration of consumer matters. A National Consumer Advisory Committee will be established. It will meet regularly to advise the Secretary and other Department officials about significant developments of concern to consumers as well as the overall effectiveness of the Department's consumer effort. The proposal for the National Consumer Advisory Committee was published in the Federal Register on September 23.

The plan also provides for the establishment of a Consumer Responsiveness Committee comprised of high-ranking Department officials. This committee will advise the Secretary on actions of the Department as they relate to consumer interests.

The Consumer Representation Plan requires agency administrators to seek consumer input at an early stage as they consider major changes in agency policy when the issues are likely to have a significant impact on consumers. To assure adequate opportunity for consumer input the plan outlines specific procedures to be followed by Department agencies. The key factors to be considered by agency administrators are:

1. Is there a history of consumer interest in the issue?
2. Are there adverse social and economic impacts?
3. Are these impacts long-term or short-term?
4. Are the consequences irreversible or irretrievable?

When such proposals are published in the Federal Register an extended comment period will be used to provide an adequate opportunity for consumer input.

When a proposal is published in the Federal Register, it will contain a "consumer summary," a short explanation of the proposal in easy-to-understand language spelling out its major points and its possible impact on consumers. Further, announcement of final departmental action in the Federal Register will include a concise statement evaluating the viewpoints expressed by consumers.

Each major department agency has appointed a consumer coordinator who will advise the agency administrator on consumer matters and reflect consumer viewpoints on significant agency issues.

The role of the Department's Special Assistant to the Secretary for Consumer Affairs is strengthened to coordinate the Department's efforts to consider consumer viewpoints on major issues. The Special Assistant will also keep consumers and consumer groups informed with respect to major Departmental actions. The Assistant Secretary for Marketing and Consumer Services is responsible for program coordination.

Questions concerning the Department's plan should be addressed to Nancy H. Steorts, Special Assistant to the Secretary of Agriculture for Consumer Affairs, (202) 447-3165, U.S. Department of Agriculture, Washington, D.C. 20250.

Food Shoppers Are Changing Habits

Many consumers are becoming more budget conscious when they shop for food, according to the U.S. Department of Agriculture's Economic Research Service (ERS).

Last spring, ERS surveyed 1,400 U.S. households, asking consumers to compare their food buying habits with those of the year before. About 30 percent of the consumers who buy the most food

for these households said they had begun checking newspaper ads more frequently for "specials," saving and using more coupons, and buying more food in volume. At least a tenth of them said they made fewer trips to food stores, mainly to save gasoline. More than a fifth said they were preparing food from scratch more often, mainly to save money.

Other consumers took different approaches to shopping. A fifth of the shoppers surveyed never saved or used food coupons or bought food in volume. Nearly a third never went to more than one store to find the best food buys, probably because 60 percent of all food buyers do their major shopping at only one store.

The survey also asked consumers how often they shop and how long it takes. Once-a-week major shopping was common for 57 percent of the shoppers. For those who go to only one store, about half spent 30 to 60 minutes shopping and 10 to 20 minutes at the checkout counter. Sixty percent of all food buyers said they try to shop when a store is not crowded.

The results from this survey are part of a study underway in ERS to assess consumers' behavior, attitudes, needs and knowledge that relate to food. More results will be released later this year.

Consumers Compare Sources of Food Safety Information

Consumers prefer getting food safety information from newspapers, television, and food labels, according to a survey by the U.S. Department of Agriculture's Economic Research Service (ERS).

Last spring, 1,400 U.S. households were surveyed. Consumers were asked which way they would most like to get food safety information. These are their leading preferences (some indicated more than one):

	Percent
Newspapers	24
Television	23
Food labels	20
Publications through the mail	14
Magazines	12
Handouts or displays at retail stores	6
Radio spot announcements	5
Demonstrations in retail stores or community workshops	2
Handouts given to children at school	1

Television attracted nearly the same preference percentages of all social and economic groups of consumers in the survey. Newpapers were favored more by older persons, those in metropolitan areas, and those with higher incomes. Food labels were more often cited by the younger and more highly educated groups. Magazines and publications through the mail were most often named by those living in rural areas.

The results from this survey are part of a study underway in ERS to assess consumers' behavior, attitudes, needs and knowledge that relate to food. More results will be released later this year.

Conference on Milk Marketing Announced

Dairy farmers and consumers will join with the U.S. Department of Agriculture this December to sponsor a two-day conference on milk marketing.

The conference is scheduled for December 14 and 15 at the Washington Hilton Hotel, Washington, D.C.

Sponsoring the conference are the U.S. Department of Agriculture, the National Milk Producers Federation and the Community Nutrition Institute.

While separate conferences have been held within the past year, the upcoming conference is the first joint effort by dairymen, consumers and the USDA to discuss the issues.

Major papers on the economic forces and institutions in milk marketing will be presented and discussed. In addition, the conference will discuss alternative economic systems for milk pricing and will consider the role of dairy cooperatives, milk processors and food retailers in milk marketing.

Registration for the two-day conference is $75. A limited number of scholarships will be available. For more information, contact: Conference on Milk Marketing, 1910 K Street, N.W., Suite 700, Washington, D.C. (202) 833-1730.

NEW PUBLICATIONS

ECONOMIC EFFECTS OF FEDERAL CONTRIBUTIONS TO THE U. S. SCHOOL LUNCH PROGRAM: CALENDAR YEAR 1972 and FISCAL YEAR 1974, by Paul E. Nelson, Jr. and John Perrin, AER NO. 350, September 1976, NEAD, ERS, U. S. Department of Agriculture, Washington, D. C. 20250.

Input-output model used to determine the economic impact of schools' expenditures of the Federal Cash Contribution and the Federal Commodity Contribution to the schools' economic impact measured in terms of changes in business receipts, gross national product, and jobs.

FAMILY EXPENDITURE PATTERNS IN CANADA, by Z. A. Hassan and S. R. Johnson, publication No. 76/3, June 1976, Economics Research, Agriculture Canada, Ottawa, K1A OC5

Data from 1972 Urban Family Expenditure Survey used to estimate consumption functions and Engel relationships.

CONSUMER NUTRITION KNOWLEDGE SURVEY, REPORT II 1975, DHEW publication No. (FDA) 76-2059, Food and Drug Administration, U. S. Department of Health, Education, and Welfare, 5600 Fishers Lane, Rockville, Maryland 20852

Results of a nationwide study of food shoppers' knowledge, beliefs, attitudes and reported behavior regarding food and nutrition.

"Grade Consist of Fed Beef Before and After Revision" by Herbert Abraham, in LIVESTOCK AND MEAT SITUATION, LMS-211, October 1976, CED, ERS, U. S. Department of Agriculture, Washington, D. C. 20250.

A study of the effect of recent grade revisions on fed beef carcasses surveyed between November 1973 and October 1974.

FARM INDEX, November 1976, ERS, U.S. Department of Agriculture, Washington, D. C. 20250

Contains highlights of results of consumer attitude and behavior survey during spring of 1976.

Table 11--Wholesale food price indsxes and Wholesale Price Index, selected periods 1/
(1967=100)

Year and month	Farm products			Processed foods and feeds														
				Meats													Industrial	
	Eggs	Fresh and dried fruits and vegetables 2/	Total 3/	Beef and veal	Pork	Total	Poultry	Fish	Dairy	Processed fruits and vegetables 2/	Vegetable oil end products	Cereal and bakery products	Sugar and confectionary	Beverages 4/	Total 5/	All food 6/	commodities 7/	All commodities
1960	122.4	99.0	97.2	95.1	86.6	91.8	116.2	81.4	86.1	92.8	88.7	88.1	90.1	92.8	89.5	92.1	95.3	94.9
1970	126.8	111.6	111.0	114.5	111.7	115.0	113.3	125.1	111.2	110.4	111.8	107.6	115.9	112.9	112.0	113.5	110.0	110.4
1971	100.8	120.1	112.9	124.1	99.5	114.1	112.4	137.0	115.4	114.5	121.1	111.4	119.2	115.8	114.3	115.5	114.0	113.9
1972	103.7	127.6	125.0	133.4	122.1	128.5	115.8	159.5	118.6	119.7	121.2	114.7	121.6	118.0	120.8	121.8	117.9	119.1
1973	165.7	168.1	176.3	163.6	160.5	163.4	177.2	190.8	131.1	129.6	143.6	134.4	132.3	121.7	148.1	146.9	125.9	134.7
1974	160.6	192.3	187.7	158.6	162.3	159.6	157.3	204.6	146.4	154.6	224.8	171.2	258.9	140.7	170.9	174.4	153.8	160.1
1975	159.8	183.7	186.7	176.3	214.7	188.7	184.1	218.7	155.8	169.8	211.5	178.0	254.3	162.4	182.6	186.0	171.5	174.9
January	168.7	174.9	179.7	148.2	183.7	161.9	169.7	193.1	148.3	171.2	247.2	182.3	358.2	162.6	186.4	188.4	167.5	171.8
February	162.4	174.6	174.6	142.7	181.8	159.0	170.5	206.5	148.5	170.9	239.5	183.6	347.3	162.2	182.6	185.6	168.4	171.3
March	166.3	163.8	171.1	143.7	180.4	159.0	164.6	203.2	148.6	169.5	231.1	181.9	303.0	162.2	177.3	180.4	168.9	170.4
April	140.0	183.4	177.7	167.7	181.9	171.6	165.9	208.3	148.9	170.8	223.1	179.1	280.1	161.7	179.4	181.9	169.7	172.1
May	145.5	183.1	184.5	189.4	201.7	189.8	175.1	216.8	149.6	171.0	215.5	176.2	239.6	161.0	179.0	182.4	170.3	173.2
June	137.9	206.7	186.2	202.3	206.5	199.3	186.5	217.5	150.5	170.9	206.7	174.4	217.8	160.4	179.7	184.3	170.7	173.7
July	139.7	208.6	193.7	201.0	231.4	208.0	208.9	225.2	153.2	169.4	203.8	176.7	228.4	159.4	184.6	189.8	171.2	175.7
August	156.7	179.6	193.2	186.5	241.0	203.4	195.3	224.9	156.3	168.6	207.9	175.8	243.2	161.6	186.3	189.0	172.2	176.7
September	174.4	182.6	197.1	192.7	250.0	209.3	196.5	229.5	160.8	168.4	197.7	177.0	219.4	162.5	186.1	189.7	173.1	177.7
October	158.4	183.3	197.3	183.7	255.5	209.1	202.6	231.0	165.6	169.3	191.1	177.6	208.3	165.1	186.2	189.1	174.7	178.9
November	175.8	179.0	191.7	174.7	239.0	198.3	195.8	228.1	168.1	169.0	190.4	177.0	207.6	165.1	182.6	186.0	175.4	178.2
December	192.3	190.3	193.8	183.0	223.9	196.0	177.7	240.7	171.3	168.5	184.0	174 6	199.1	165.4	181.0	185.2	176.1	178.7
1976																		
January	182.0	194.8	192.8	173.1	224.6	190.4	164.5	253.1	169.7	167.6	174.1	174.7	202.6	165.1	179.4	183.2	177.3	179.3
February	177.0	192.6	191.0	162.0	213.5	180.3	170.1	256.2	163.4	166.7	170.9	175.1	200.4	167.0	176.4	179.7	178.0	179.3
March	159.2	184.5	187.2	150.0	202.4	171.7	178.8	261.3	166.7	166.5	170.2	174.5	207.5	167.0	175.8	178.2	178.9	179.6
April	162.6	195.0	192.9	171.5	203.3	183.5	163.8	271.3	167.7	167.1	168.8	172.8	202.5	169.3	178.0	181.5	180.0	181.3
May	171.5	179.0	192.6	162.0	212.6	182.8	171.8	279.9	167.1	167.9	173.4	173.4	208.7	172.3	179.9	182.1	180.4	181.8
June	165.8	160.8	196.5	157.9	220.9	182.0	172.2	283.7	167.0	170.0	170.6	173.7	197.4	172.7	181.8	180.1	181.3	183.1
July	167.7	164.7	196.9	147.3	218.0	175.3	181.2	278.7	170.0	169.9	173.1	173.6	201.3	175.7	182.6	180.9	182.6	184.3
August	186.8	159.3	189.3	144.9	192.5	164.7	177.2	259.9	173.9	171.3	172.7	170.9	185.0	175.8	176.8	176.2	183.6	183.7
September	188.9	180.2	191.8	148.0	194.2	166.2	166.2	276.2	170.3	172.3	179.9	169.6	167.3	176.0	177.1	176.5	184.7	184.7
Seasonally adjusted																		
1975																		
January	149.6	173.5	177.9	150.3	177.2	160.4	179.9	189.1	147.7	171.4	249.7	---	365.1	---	185.3	---	---	---
February	164.2	161.4	170.2	137.3	174.6	153.8	173.9	201.6	148.1	171.6	239.0	---	348.7	---	180.3	---	---	---
March	160.4	160.0	168.1	139.9	187.6	160.5	156.1	202.7	146.8	170.9	230.0	---	303.0	---	175.7	---	---	---
April	146.4	172.4	179.3	167.2	197.5	176.9	175.3	208.7	148.2	171.0	226.5	---	282.4	---	182.0	---	---	---
May	170.7	167.5	184.5	185.7	214.2	193.4	176.9	217.9	149.9	170.7	218.1	---	238.9	---	180.3	---	---	---
June	154.6	190.4	181.7	154.8	217.0	197.9	189.6	225.4	152.0	170.2	209.2	---	214.2	---	178.1	---	---	---
July	154.4	205.5	193.7	189.0	218.6	198.2	191.5	226.9	153.5	169.7	207.1	---	227.3	---	183.9	---	---	---
August	160.6	194.8	190.7	184.6	228.5	196.5	190.0	229.2	158.0	168.3	205.8	---	239.6	---	184.5	---	---	---
September	160.3	208.5	198.9	191.0	240.6	203.4	181.5	230.5	161.6	168.7	192.5	---	217.7	---	186.3	---	---	---
October	159.0	200.5	203.2	192.1	247.9	211.3	201.4	232.6	165.3	169.6	186.3	---	207.9	---	187.7	---	---	---
November	171.2	178.5	198.0	192.8	244.4	209.0	197.5	225.3	167.9	167.5	188.1	---	209.1	---	186.5	---	---	---
December	166.9	200.3	196.4	195.3	226.5	205.6	195.8	236.2	170.8	168.0	187.2	---	201.5	---	181.0	---	---	---
1976																		
January	161.3	193.3	190.9	175.6	216.6	188.5	174.4	247.9	169.0	167.8	175.9	---	206.5	---	178.3	---	---	---
February	179.0	184.0	186.2	155.9	205.1	174.4	173.6	250.2	162.9	167.4	170.6	---	201.2	---	174.1	---	---	---
March	152.2	183.2	185.9	146.1	210.4	173.3	169.5	260.8	164.9	167.5	170.9	---	209.6	---	175.9	---	---	---
April	174.8	183.6	193.8	170.1	220.1	189.2	173.2	271.8	166.9	168.1	171.7	---	205.6	---	179.3	---	---	---
May	198.7	168.4	194.9	158.8	225.9	186.2	173.5	281.3	167.4	168.6	176.2	---	214.9	---	181.6	---	---	---
June	187.6	146.8	195.4	152.1	232.0	180.7	175.2	294.0	168.2	170.0	174.3	---	200.4	---	182.4	---	---	---
July	185.1	157.9	193.4	138.4	205.9	167.1	166.1	280.9	171.2	170.2	174.1	---	205.6	---	180.8	---	---	---
August	190.4	172.6	187.7	143.5	182.5	159.1	172.4	264.9	175.7	171.1	169.0	---	186.3	---	175.6	---	---	---
September	174.1	198.5	191.2	146.7	186.9	161.5	153.5	277.6	171.0	172.1	176.9	---	167.3	---	176.4	---	---	---

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices and Expenditures, Agricultural Economic Report No. 138, table 106. 2/ Includes potatoes. 3/ In addition to items listed separately, includes grains, livestock, live poultry, plant and animal fibers, milk, hay, hayseeds, oilseeds, and other farm products such as coffee beans, cocoa beans and tobacco. 4/ Includes alcoholic beverages. 5/ Includes animal fats and oils, crude and refined vegetable oils, manufactured animal feed, and miscellaneous processed foods in addition to items listed separately. 6/ All food includes all processed foods (omitting soft drinks, alcoholic beverages and manufactured animal feeds) plus eggs and fresh and dried fruits and vegetables from the farm products group. 7/ Prior to 1967, includes manufactured animal feeds, soft drinks, and alcoholic beverages. 8/ Meats, poultry, and fish and all food are computed by ERS.

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Table 12 Retail food price indexes and Consumer Price Index, selected periods 1/
(1967=100)

Year and Month	Food at home															Food away from home	All food	Consumer Price Index less food	Consumer Price Index 5/
	Meats			Poultry	Fish	Eggs	Dairy products 3/	Fats and oils 4/	Fruits and vegetables			Cereal and bakery products	Sugar and sweets	Beverages	Total				
	Beef and veal	Pork	Total 2/						Fresh	Processed	Total								
1960	92.1	81.7	87.2	106.9	85.0	113.2	88.4	---	84.6	92.9	88.3	87.1	90.1	91.5	89.6	81.4	88.0	88.8	88.7
1970	119.5	115.9	117.6	108.4	118.0	125.6	111.8	105.8	116.3	109.2	113.4	108.9	115.1	117.4	113.7	119.9	114.9	116.7	116.3
1971	124.9	105.0	116.7	109.0	130.2	108.4	115.3	115.4	121.0	116.2	119.1	113.9	119.3	121.6	116.4	126.1	118.4	122.1	121.3
1972	136.6	121.6	129.2	110.4	141.9	107.7	117.1	116.6	128.0	120.5	125.0	114.7	120.9	121.3	121.6	131.1	123.5	125.8	125.3
1973	163.8	161.7	161.1	154.8	162.8	160.2	127.9	126.4	150.8	130.2	142.5	127.7	128.3	130.2	141.4	141.4	141.4	130.7	133.1
1974	168.5	161.0	164.1	146.9	187.7	160.8	151.9	179.4	162.6	170.6	165.8	166.1	195.2	155.6	162.4	159.4	161.7	143.7	147.7
1975	170.0	196.9	177.9	162.4	203.3	157.8	156.6	198.6	166.1	178.3	171.0	184.8	246.2	178.9	175.8	174.3	175.4	157.1	161.2
January	158.5	170.0	161.9	152.8	195.7	172.6	155.2	214.7	153.6	178.3	163.5	185.3	281.0	175.3	171.4	169.0	170.9	151.8	156.1
February	156.6	169.6	160.9	152.0	197.2	172.1	155.6	214.9	159.2	177.9	166.7	187.3	273.9	177.0	172.0	170.5	171.6	153.0	157.2
March	153.3	170.5	159.7	151.8	197.1	153.5	155.4	213.1	159.9	178.7	167.4	189.1	269.5	177.8	171.4	171.3	171.3	153.9	157.8
April	154.6	170.0	160.2	148.9	197.3	158.2	154.8	209.7	160.9	178.2	167.8	188.9	255.7	178.0	171.0	172.2	171.2	154.9	158.6
May	166.4	175.6	167.9	149.8	199.1	144.6	153.6	203.0	164.7	175.4	169.0	187.0	246.0	175.3	171.6	172.8	171.8	155.6	159.3
June	176.6	187.9	177.8	157.7	200.4	137.2	153.3	195.8	179.0	175.0	177.4	185.2	236.8	174.9	174.9	173.1	174.4	156.6	160.6
July	186.4	204.9	188.5	172.8	202.9	144.6	153.4	191.7	198.4	174.7	188.8	184.6	228.9	174.1	179.9	174.2	178.6	157.6	162.3
August	182.5	214.3	190.4	174.3	205.1	151.1	154.3	189.3	180.0	174.8	177.9	182.6	236.0	175.1	179.0	175.3	178.1	158.3	162.8
September	176.7	222.4	190.5	177.2	208.1	163.9	156.3	189.7	161.6	176.1	167.4	181.6	238.6	177.9	178.2	176.5	177.8	159.5	163.6
October	178.3	230.9	194.3	171.6	210.6	159.3	159.4	188.8	156.1	179.6	165.5	181.6	235.0	183.7	179.3	178.0	179.0	160.4	164.6
November	175.3	227.5	192.4	171.1	211.7	160.1	162.8	187.1	158.2	184.3	168.7	181.9	228.0	188.1	180.0	179.2	179.8	161.5	165.6
December	174.7	219.6	189.8	168.5	214.1	176.4	165.5	185.9	162.1	187.0	172.1	182.2	225.7	190.1	180.9	180.0	180.7	162.1	166.3
1976																			
January	174.9	210.1	186.8	164.5	216.1	182.8	168.2	182.4	163.8	187.3	173.3	182.0	224.5	191.1	180.8	180.9	180.8	162.6	166.7
February	168.3	208.5	182.8	159.8	219.2	184.7	168.5	177.4	164.4	186.4	173.2	181.1	224.0	191.7	179.6	181.9	180.0	163.4	167.1
March	164.7	204.3	179.6	157.7	219.3	160.4	167.9	175.0	165.2	186.1	173.6	180.6	222.4	193.0	177.7	182.8	178.7	164.2	167.5
April	160.8	200.0	176.6	158.0	222.3	159.4	167.9	171.7	174.7	185.4	179.0	180.2	221.1	198.0	178.1	183.8	179.2	165.0	168.2
May	167.1	201.9	180.6	155.3	225.1	154.5	167.4	170.6	171.7	183.3	176.4	180.8	219.5	203.3	178.8	184.8	180.0	166.0	169.2
June	166.5	205.0	181.6	160.7	226.3	152.6	167.9	170.4	173.6	181.3	176.7	181.3	219.3	208.7	179.7	185.6	180.9	167.0	170.1
July	166.9	208.7	182.9	161.9	227.9	164.1	168.0	169.7	175.0	180.9	177.3	180.9	217.9	216.3	180.9	186.9	182.1	167.9	171.1
August	163.3	206.0	180.1	158.2	229.3	175.7	169.0	169.2	176.6	180.7	178.3	180.3	218.0	223.2	181.0	187.8	182.4	168.9	171.9
September	162.3	200.7	177.4	155.1	234.4	182.3	171.1	171.1	163.6	181.4	170.8	180.4	214.9	227.6	179.9	188.7	181.6	170.0	172.6
Seasonally adjusted																			
1975	170.0	196.7	177.8	162.3	203.3	157.7	156.6	198.6	166.1	178.3	171.0	184.8	246.1	178.9	175.8	174.3	175.5	---	161.3
January	162.6	169.5	164.1	156.0	195.8	158.0	154.8	213.7	160.8	178.1	167.2	185.3	280.3	175.9	171.9	169.0	171.3	---	156.6
February	157.0	167.2	160.5	154.4	196.7	158.6	153.9	214.2	162.3	177.1	167.8	185.9	270.5	177.3	171.1	170.9	171.1	---	157.3
March	149.7	168.8	156.8	151.9	196.5	151.9	153.8	211.0	160.4	177.5	167.2	187.0	265.6	178.2	170.3	171.8	170.6	---	157.9
April	153.7	174.2	160.3	149.5	196.8	161.0	153.6	208.4	158.8	176.2	166.4	187.2	253.8	177.9	170.6	172.4	171.0	---	158.7
May	167.6	185.6	172.1	154.6	198.4	157.6	153.0	203.6	159.4	174.9	165.7	186.0	246.9	175.4	172.3	173.1	172.5	---	159.5
June	178.2	194.2	182.1	159.4	200.5	156.9	153.8	199.3	163.4	175.1	168.7	186.1	239.1	174.9	174.9	173.4	174.6	---	160.6
July	183.9	205.6	185.7	168.1	203.3	160.3	155.5	196.8	178.9	175.7	179.1	186.3	231.0	173.9	178.6	174.5	177.8	---	162.2
August	177.4	209.1	186.9	168.6	206.8	155.5	156.9	192.6	169.8	176.6	172.9	185.4	239.9	174.9	178.1	175.3	177.5	---	162.8
September	172.3	214.6	186.7	167.3	209.5	155.0	158.2	190.7	170.1	177.1	172.3	183.8	240.5	177.4	178.4	176.4	178.0	---	163.5
October	178.6	224.3	192.1	169.8	211.5	155.8	160.1	186.7	168.2	181.0	173.1	182.3	236.1	182.9	180.2	177.5	179.6	---	164.5
November	178.7	225.2	193.3	172.7	210.8	159.2	162.3	184.0	168.0	184.4	174.3	181.7	228.0	188.1	181.2	178.6	180.6	---	165.5
December	180.8	222.5	193.7	175.4	213.2	163.5	164.1	182.9	173.8	186.7	177.8	180.6	222.4	190.8	182.1	179.5	181.6	---	166.4
1976																			
January	179.4	209.5	189.3	168.0	---	167.2	167.7	181.5	171.5	187.1	177.2	182.0	---	---	181.4	180.9	181.2	---	167.1
February	168.8	205.4	182.4	162.2	---	170.4	166.7	176.9	167.6	185.7	174.2	179.7	---	---	178.6	182.4	179.4	---	167.3
March	160.8	202.3	176.3	157.9	---	158.7	166.2	173.3	165.7	184.8	173.4	178.6	---	---	176.5	183.4	177.9	---	167.6
April	159.8	204.9	176.8	158.6	---	162.2	166.6	170.7	172.5	183.2	177.4	178.6	---	---	178.1	184.0	178.9	---	168.3
May	168.2	213.4	185.2	160.3	---	168.5	166.7	171.1	166.2	182.8	172.9	179.9	---	---	179.5	185.0	180.6	---	169.3
June	168.0	212.0	186.1	162.5	---	174.6	168.4	173.5	158.5	181.5	168.0	182.2	---	---	179.8	181.0	181.0	---	170.1
July	164.6	209.3	180.2	157.5	---	181.9	170.2	174.2	157.8	182.0	168.2	182.5	---	---	179.8	187.1	181.2	---	170.9
August	158.7	201.0	176.7	153.0		180.8	171.7	172.1	166.6	182.5	173.3	183.0	----	---	180.3	187.8	181.8	---	171.7
September	158.2	193.7	173.9	146.5	---	172.5	173.2	172.0	172.2	182.5	175.7	182.6	---	---	180.1	188.5	181.8	---	172.5

1/ For earlier annual data (1957-59 reference base), see Food Consumption, Prices, and Expenditures, Agricultural Economics Report No. 138, July 1968. 2/ Beef, veal, lamb and mutton, pork, and processed meat. 3/ Includes butter. 4/ Excludes butter. 5/ Seasonally adjusted series derived by ERS.

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